BIAMP™

The love of sound is Biamp's reason for being, and has been since the company was founded, over 30 years ago. Biamp has grown to be an acknowledged international leader in professional installed audio electronics. The company's employees still share a passion for sound that resonates through every product and every decision the company makes.

Most people have never seen Biamp products, but they've probably heard them work wonders — in airports, arenas, courtrooms, Houses of Worship, theatres, universities, corporations, and conference centres. Around the world, around the clock, Biamp equipment is delivering, managing and enhancing the sound.

TOA

A highly respected Japanese company founded in 1934, TOA has established an international reputation in the commercial audio industry thanks to innovative design and extremely reliable, high-quality products. Advanced research and development capability has ensured TOA's position as a world leader in PA systems, PA components, speakers, wireless microphones, pro sound equipment and intercom. TOA is committed to maintaining its industry and product leadership position and reputation for outstanding quality and reliability.

DENON

Denon's heritage extends back to the dawn of music reproduction. Commencing in 1910, Denon was originally the brand name of Nippon Columbia, Ltd, the first recording and audio company in Japan and the inventors of Pulse Code Modulation (PCM) the basis of digital audio. Denon has been a leader in audio technology development since its inception. Initially specialising in professional audio products, Denon expanded in 1963 to create a range of international award winning consumer products.

DENON PROFESSIONAL marantz PROFESSIONAL

D and M Professional, parent company of Denon Professional, Marantz Professional and Denon DJ, manufactures a reliable line of professional audio and video equipment for the broadcast, commercial, corporate, DJ, education, government, audio/visual, houses of worship, security, and related industries.

PEAVEY

Peavey is one of the largest, most diversified, independently owned suppliers of musical instruments and professional sound equipment in the world. World renowned musicians from every musical genre use Peavey instruments and sound gear.

Peavey holds more than 130 patents and produces more than 2,000 products, which are distributed throughout the United States and to 136 other countries.

Hartley Peavey founded his company over 45 years ago to assert that quality, craftsmanship and value can be had at fair and reasonable prices. This simple philosophy has altered the course of the music industry and changed Hartley from an amateur musician to champion of musicians-and it continues to drive his company today.

AKG crown

AKG is a world-renowned specialist in state-of-the-art transducer technology.

AKG products are a synthesis of aesthetic styling, optimum functionality and performance. AKG products are dedicated to the transmission of voice and music, specifically microphone and headphone products for mainly professional users in the fields of broadcasting.

From humble beginnings in 1947 as a two-man company in Vienna (Austria), AKG quickly became a leading audio supplier thanks to many ground breaking innovations that are now manifested in over 1,400 patents worldwide.

NILES

Established in 1978 Niles has been a world leader in the development and manufacturing of custom installed audio/video components and accessories. Based in Florida, USA, Niles has developed an extensive product range that includes volume controls, speaker selection systems, automated switching systems, infrared extender systems, systems integration amplifiers, indoor/outdoor loudspeakers, home theatre loudspeakers, and the most complete line of quality in-wall and in-ceiling loudspeakers available.

Key digital

Key Digital, led by digital video pioneer Mike Tsinberg and based in New York, USA, develops and manufactures high quality, cutting-edge technology solutions for virtually all applications where high quality video imaging is important.

Key Digital is at the forefront of the video industry for home theatre retailers, custom installers, system integrators, broadcasters, manufacturers, and consumers. Key Digital's expertise lies in video technology, which has led to the development of high-quality, cutting-edge video interconnectivity solutions for global markets.

PRO AV

Pro AV cable offers a comprehensive line of interconnects and speaker cables. The brand was established from the need for a range of cable that offers true mid to high performance at competitive prices. Pro AV focuses on high quality and high performance cables to connect audio/video components for the home as well as for professional and commercial applications.

TANNOY

Few companies' products have such a profound impact on our lives that their names enter the dictionary as generic descriptions for their inventions. There are notable exceptions such as Biro, for its ballpoint pen and Hoover for its vacuum cleaner. But in the audio field, Tannoy stands alone for its success in developing early public address systems and then continuing its reputation for pioneering audio solutions. The word Tannoy is synonymous with sound, appearing in the dictionary as: 'a communications system with loudspeakers, used for making announcements in public buildings.'

Today, Tannoy can be found not only in the homes of discerning hi-fi enthusiasts across the globe, but in some of the most prestigious audio installations throughout the world. Examples include the Hong Kong Convention Centre, the Sydney Opera House, the London Palladium, the Bellagio and Hard Rock Hotels in Las Vegas, and most recently, the Burj Khalifa and Atlantis Hotel Resort in Dubai and the Yas Marina Hotel on the Abu Dhabi F1 circuit.

The company's Scottish factory HQ is located in Coatbridge, near Glasgow, where they've been based for the past 35 years. All Tannoy products are still conceived, designed and developed at their UK base to this day, and many are manufactured there as well.

revolabs

Revolabs, Inc. delivers innovative wireless audio products for both enterprise collaboration and professional audio applications. The company's products are used throughout the world and across a wide range of industries including houses of worship, corporations, financial services, education, medical, legal and more. Revolabs Wireless Microphone Systems provide superior audio performance for broadcasting, live sound, video- and audio-conference calls, distance learning, webcasts, and other audio applications. The Revolabs products facilitate natural mobility by allowing participants to move around with no wires to worry about. The Revolabs Wireless Microphones are wireless, secure, rechargeable, and flexible, and most are impervious to GSM noise.

ROLLS

Rolls Corporation specialises in audio electronics manufacturing. Products include signal processors, amplifiers, mixers, signal sources, and interface accessories. Rolls' no-nonsense products are noted for their ability to deliver real-world solutions to tricky audio problems.

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Amplifiers

Mixer Amplifiers - Single Channel

TOA A2000 Series

- 3 mic and 2 aux inputs
- 30, 60, 120, 240 watt models
- 240 watt power amp with 100 volt line input

See also P2240 Power Amps Page 7

Optional Accessories
MB25B rack brackets

	Power	Speaker Output	Inputs	Dimensions (mm)	Weight (Kg)
A2030	30 watts	100 volt, 70 volt, 4 ohm	3 x Bal. XLR Mic, 2 x Un-Balanced Aux	420 (W) × 100.9 (H) × 280.3 (D)	5
A2060	60 watts	100 volt, 70 volt, 4 ohm	3 x Bal. XLR Mic, 2 x Un-Balanced Aux	420 (W) × 100.9 (H) × 280.3 (D)	7
A2120	120 watts	100 volt, 70 volt, 4 ohm	3 x Bal. XLR Mic, 2 x Un-Balanced Aux	420 (W) × 100.9 (H) × 280.3 (D)	10.8
A2240	240 watts	100 volt, 70 volt, 4 ohm	3 x Bal. XLR Mic, 2 x Un-Balanced Aux	420 (W) × 100.9 (H) × 280.3 (D)	13.2
P2240	240 watts	100 volt, 70 volt, 4 ohm	Balanced Line Level and 100 volt	420 (W) × 100.9 (H) × 280.3 (D)	13.2

TOA A1700 SERIES

- Two zone operation
- 60, 120 and 240 watt models
- 6 mic and 3 aux inputs

See also P1812 Power Amps Page 7

Optional Accessories
MB25B rack brackets

Amplifier	Power	Speaker Output	Inputs	Speaker Zones	Dimensions (mm)	Weight (Kg)
A1706	60 watts	100 volt, 4 - 16 ohms	6 x Bal. XLR Mic, 3 x Aux (1 x Bal. XLR, 2 x RCA)	2	420 (W) x 107.7 (H) x 367 (D)	9.3
A1712	120 watts	100 volt, 4 - 16 ohms	6 x Bal. XLR Mic, 3 x Aux (1 x Bal. XLR, 2 x RCA)	2	420 (W) x 107.7 (H) x 367 (D)	12.6
A1724	240 watts	100 volt, 4 - 16 ohms	6 x Bal. XLR Mic, 3 x Aux (1 x Bal. XLR, 2 x RCA)	2	420 (W) x 107.7 (H) x 367 (D)	13.5

TOA A1800 SERIES

- Two zone operation
- 30, 60 and 120 watt models
- 3 mic and 3 aux inputs

See also P1812 Power Amps Page 7

Amplifier	Power	Speaker Output	Inputs	Speaker Zones	Dimensions (mm)	Weight (Kg)
A1803	30 watts	100 volt, 4 - 16 ohms	3 x Bal. XLR Mic, 3 x Aux (1 x Bal. XLR, 2 x RCA)	2	420 (W) x 107.7 (H) x 367 (D)	8.1
A1806	60 watts	100 volt, 4 - 16 ohms	3 x Bal. XLR Mic, 3 x Aux (1 x Bal. XLR, 2 x RCA)	2	420 (W) x 107.7 (H) x 367 (D)	9.4
A1812	120 watts	100 volt, 4 - 16 ohms	3 x Bal. XLR Mic, 3 x Aux (1 x Bal. XLR, 2 x RCA)	2	420 (W) x 107.7 (H) x 367 (D)	12.6
P1812	120 watts	100 volt, 4 - 16 ohms	Line Level (RCA), Remote Power		420 (W) x 107.7 (H) x 367 (D)	12.2

Amplifiers

Mixer Amplifiers - Single Channel

TOA VM2000

- Five zone mixer amplifiers
- Can be cascaded up to 20 zones (four amplifiers)
- 120 or 240 watt models
- Three priority levels including BGM
- Optional message board

Optional Accessories
RM200M Zone Paging Mic
EV200M Voice Announcement Board
SV200M Surveillance Board
MB36 rack brackets

RM200M Zone Paging Mic

EV200M Voice Announcement Board

SV200M Surveillance Board

MB36 rack brackets

Amplifier	Power	Speaker Output	Inputs	Speaker Zones	Dimensions (mm)	Weight (Kg)
VM2120	120 watts	100 volt	3 x MIC/LINE, 2 x BGM, 1 Telephone Paging	5	419 (W) ×143.3 (H) × 355.7 (D)	12.5
VM2240	240 watts	100 volt	3 x MIC/LINE, 2 x BGM, 1 Telephone Paging	5	419 (W) ×143.3 (H) × 355.7 (D)	14.5

Amplifiers

Mixer Amplifiers - Single Channel

ROLLS PA71Plus Micro Mix Power Amplifier

A single microphone preamp and line level signal can be mixed together. Built-in 7 watt amp makes the PA71 the perfect amplifier for a small board room or classroom.

- Mixes XLR mic and RCA line inputs
- 7 Watt (4 ohms) power amplifier output (spring terminals)
- + 12 VDC phantom power for mic input
- 1/4" line/power output

Model	Power	Speaker Outlet	Inputs	Dimensions (mm)	Weight (Kg)
PA71plus	7w	4ohms	1x XLR, 2xRCA	110(W) x 40(H) x 60(D)	0.5

Denon Pro DNA300

- 2 x 110w power amplifiers
- A/B speaker On/Off buttons
- 6 x unbalanced RCA audio inputs with grounded phono input
- 2 x unbalanced record outputs
- 1 x unbalanced Pre-out for connection to external amplification
- Front-panel mounted 1/4" mic jack allows for paging and announcements
- Multiple mic mixing options including Auto Music Mute and Mic Mix
- Fully Adjustable mic level or automate the mic level with the internal AGC mic circuit
- Ideal for cafés, restaurants, etc.

Model	Power	Speaker Outlet	Inputs	Dimensions (mm)	Weight (Kg)
DNA300	2 x 110 watts	2 x Stereo	6 x stereo RCA, 1 X 6.35mm Mic	483(W) x 140(H) x372(D)	10.3

Amplifiers

Powered Mixers

Since 1968, with the introduction of the PA-3 system, Peavey has paved the way for portable sound. Following this tradition, the latest XR series powered mixers exhibit clever and unique features in powerful yet lightweight, easy to use packages.

XR1220P

XR1212P

Peavey XR1220P and XR1212P

- Dual 600W lightweight Class D power amps
- 5 operation modes
- Auto room EQ
- Feedback Ferret®
- 4-band EQ on input channels
- Digital effects
- Dual 9-band graphic EQ
- Two monitor sends
- Dedicated effect return fader
- 20 XLR mic channels (XR1220P), 12 XLR mic channels (XR1212P)
- 5 year warranty

Also available:
PVR2 RTA reference mic, used for automated room analysis.

XR8300

XR8600D

Peavey XR8300 and XR8600D

- 2 x 600W (XR8600D) or 2 x 300W (XR8300) RMS into 4 Ohms
- 8 x low noise XLR inputs
- 2 stereo inputs
- 2 x 7-band graphic equalizers with Feedback Locating System (FLS)
- Selectable 48V phantom power
- Digital effects
- DDT speaker protection
- Rugged moulded case with handle
- 5 year warranty

	XLR mic inputs	Power amps	Format	Rack mount	Other features
XR1220P	20	2 x 600W digital	Console	No	Flexible amp configuration (main or monitor); multiple EQ options
XR1212P	12	2 x 600W digital	console	yes	Flexible amp configuration (main or monitor); multiple EQ options
XR8300	8	2 x 300W analogue	'brick'	no	Flexible amp configuration (main or monitor)
XR8600D	8	2 x 600W digital	'brick'	no	Flexible amp configuration (main or monitor)

Amplifiers

Vehicle Amplifiers

TOA CA SERIES

- Mobile amplifiers for car, bus etc
- Two phone jack (6.5mm) mic inputs
- AUX input for external equipment connection.
- Unidirectional dynamic microphone with talk switch

Amplifier	Power	Speaker Output	Inputs	Dimensions (mm)	Power Supply	Weight (Kg)
CA115	15 watts	4 or 8 ohms	1 x Auxiliary	178 (W) x 50 (H) x 132 (D)	10 – 16 VDC - 2.2 AMP	0.9
CA130	30 watts	4 or 8 ohms	1 x Auxiliary	178 (W) x 50 (H) x 144 (D)	10 – 16 VDC - 4.4 AMP	1.1
CA160	60 watts	4 or 8 ohms	1 x Auxiliary	178 (W) x 50 (H) x 170 (D)	10 – 16 VDC - 9 AMP	1.2

Amplifiers

Power Amplifiers - Single Channel

TOA P1812

- 120 watt power amplifier
- Front volume control
- Cascade out for signal and control
- 24VDC operation, remote switch on

Optional Accessories
MB25B rack brackets

TOA P2240

- 240 watt power amplifier
- 100 volt line input as well as line level
- Front volume, bass and treble adjustment
- 24VDC operation

Optional Accessories
MB25B rack brackets

Amplifier	Power	Speaker Output	Inputs	Dimensions (mm)	Weight (Kg)
P1812	120 watts	100 volt, 4 - 16 ohms	Line Level (RCA), Remote Power	420 (W) x 107.7 (H) x 367 (D)	12.2
P2240	240 watts	100 volt, 70 volt, 4 ohm	Balanced Line Level and 100 volt	420 (W) × 100.9 (H) × 280.3 (D)	13.2

Amplifiers

Power Amplifiers - Two Channel Low Impedance

Peavey PV series amplifiers

Featuring Peavey's DDT™ distortion detection technique (which virtually eliminates distortion caused by over-driving the amplifier), the PV series is rugged, value-priced family of hardworking analogue amplifiers. The PV series also features Peavey's patented Turbo-V™ cooling design, which cools the power transistors more evenly than traditional heat-sink designs, leading to long service life (which is backed by APG's five year warranty).

- Industry-standard 2RU size
- Combi-jack (XLR and 6.35mm inputs)
- Input gain control per channel
- Speakon and binding post outputs
- Switchable low cut filter
- Switchable crossover for subwoofer operation
- Front panel LEDs show signal presence, DDT active
- Five year warranty

	Output Power (Per Channel, 4 Ohms) Wrms	Output Power (Per Channel, 8 Ohms) Wrms	Output Power (Bridged Mono, 8 Ohms) Wrms	THD	Frequency Response	Dimensions (hxwxd)
PV900	300	180	600	< 0.03%	20Hz – 20kHz	89mm x 483mm x 392mm; 13kg
PV1500	500	300	1,000	< 0.03%	20Hz – 20kHz	89mm x 483mm x 392mm; 15kg
PV2600	900	550	1,800	< 0.03%	20Hz – 20kHz	89mm x 483mm x 392mm; 18kg
PV3800	1,300	775	2,650	< 0.05%	10Hz – 100kHz	89mm x 483mm x 392mm; 20kg

Peavey CS amplifiers

Building on the reputation of the world-famous Peavey CS series, which conquered the power amp market in the 1970s, the updated CS® Series is the global standard-bearer for workhorse reliability. Over the years, these amps have benefited from some of Peavey's most popular audio innovations, including the exclusive DDT™ compression/anti-clipping protection. With its 2 RU design and power points up to 4080 watts, this latest evolution of the CS® Series is leaner, louder and lighter than ever. Like all Peavey products, the CS Series is backed by a five year warranty

- Industry-standard 2RU size
- Combi-jack (XLR and 6.35mm inputs)
- Input gain control per channel
- Speakon and binding post outputs
- Supports 2-ohm loads (except CS4080HZ)
- Front panel LEDs show signal presence, DDT active
- Five year warranty

	Output power (per channel, 2 ohms) WRMS	Output power (per channel, 4 ohms) WRMS	Output power (per channel, 8 ohms) WRMS	Output power (bridged mono, 8 ohms) WRMS	THD	Frequency response	Dimensions (hxwxd)
CS1400	330	500	700	1,400	< 0.05%	10Hz – 35kHz	89mm x 483mm x 446mm; 15kg
CS2000	1,075	760	495	2,150	< 0.05%	10Hz – 35kHz	89mm x 483mm x 392mm; 17kg
CS3000	1,550	1,065	650	3,100	< 0.05%	10Hz – 35kHz	89mm x 483mm x 392mm; 19kg
CS4000	2,000	1,350	800	4,000	< 0.05%	10Hz – 35kHz	89mm x 483mm x 392mm; 21kg
CS4080HZ	n/a	2,040	1,250	4,080	< 0.05%	10Hz – 35kHz	89mm x 483mm x 392mm; 22kg

Amplifiers

Power Amplifiers - Two Channel Low Impedance

Peavey IPR amplifiers

Boasting a net weight as low as 3.2kg, the ground-breaking IPR Series utilises an advanced design that allows the engineers to dramatically reduce weight while increasing output power, reliability and thermal efficiency. IPR Series amplifiers are designed with a resonant switch-mode power supply and a high-speed class D topology that yields the highest audio resolution and efficiency available. And all at a cost that shatters the old-guard paradigm of power-amp valuation.

Coming in 2012, The IPR DSP Series amplifiers feature the same power ratings, design and efficiency, plus a 32-bit processor with a suite of delays and crossovers, pre-programmed loudspeaker settings, stereo/mono operation, lockout--and for the first time in any power amplifier, built-in Waves® MaxxBass® technology, which uses psycho-acoustics to add more low-end to your system without the need for more power amps, processing or subwoofers.

- DDT(tm) protection
- Revolutionary IPR class D topology
- Detented input controls
- Combination XLR.6.35mm inputs
- Combination Speakon/6.35mm output connectors
- Incredibly light weight
- Individual signal pass-thru 6.35mm jacks on each channel
- LED illuminated

	Output power (per channel, 2 ohms) WRMS	Output power (per channel, 4 ohms) WRMS	Output power (per channel, 8 ohms) WRMS	THD	Frequency response	DSP-based speaker processing	Dimensions (hxwxd)
IPR1600	800	530	300	< 0.1%	10Hz – 50kHz	no	89mm x 483mm x 260mm; 3.2kg
IPR3000 (late 2011)	1,490	840	440	< 0.1%	10Hz – 50kHz	no	89mm x 483mm x 260mm; 3.4kg
IPR1600DSP (2012)	900	515	290	< 0.1%	10Hz – 50kHz	yes	89mm x 483mm x 260mm; 3.2kg
IPR3000DSP (2012)	1,450	815	430	< 0.1%	10Hz – 50kHz	yes	89mm x 483mm x 260mm; 3.4kg

Niles SI 245/275

Niles Systems Integration Amplifiers® deliver superb sound and reliability with features specifically tailored to the needs of the custom installer, including multiple turn-on modes, adjustable input level controls, cascade outputs, 12V triggers, and removable IEC power cords.

- Stable into low-impedance loads (2.66 ohms, 4 ohms in bridged mode)
- DC, short-circuit, and overload protection with automatic reset
- Gold-plated RCA cascade output jacks for signal routing to other amplifiers
- Independent installer-adjustable level controls
- Three turn-on modes: music sense, voltage trigger (accepts 3-30V AC/DC) and manual mode
- 12V DC control output (3.5 mm mini jack) to automate the turn-on and turn-off of another component

Model	Channels	Output Power (per channel into 4ohms) WRMS	Output Power (per channel into 8ohms) WRMS	THD	Stable Impedance Loads (2.66ohms)	Rated Current Draw	Dimensions (hxwxd)
SI245	2	70	45	< 0.1%	yes	6A	60mm x 432mm x 333mm; 9kg
SI275	2	100	75	< 0.1%	yes	9A	102mm x 432mm x 333mm; 11kg

Amplifiers

Power Amplifiers - Two Channel Low Impedance

TOA DA250D

- Two channel low impedance digital power amplifier
- 2 x 250 watt (4 ohm), 2 x 170 watt (8 ohm)
- Bridgeable output (1 x 500 watt 8 ohm)
- Input 1 can be sent to both outputs - switchable
- Independent power supply to each channel
- High efficiency 80 to 90%
- Compact design (1RU) only 5.3 kg

Amplifier	Power	Speaker Output	Inputs	Channels	Bridgeable	Dimensions (mm)	Weight (Kg)
DA250D	2 X 250 W	4 ohms	2 x line level	2	Yes	482 (W) × 44 (H) × 401.8 (D)	5.3

Rolls RA235 Stereo Power Amplifier

- 35 W per output (4 ohms)
- 1/4" and RCA inputs
- Spring-loaded output terminals
- Front-panel heat sinking
- Protected output stage

Amplifier	Power	Speaker Output	Inputs	Channels	Bridgeable	Dimensions (mm)	Weight (Kg)
RA235	2 x 35 W	8 ohms	2 x line level	2	No	482 (W) × 44 (H) × 127 (D)	2.5

Power Amplifiers - Two Channel High Impedance

TOA DA250DH

- Two channel high impedance digital power amplifier
- 2 x 250 watt 100 volt line
- Input 1 can be sent to both outputs - switchable
- Independent power supply to each channel
- High efficiency 80 to 90%
- Compact design (1 RU) only 5.3 kg

Amplifier	Power	Speaker Output	Inputs	Channels	Bridgeable	Dimensions (mm)	Weight (Kg)
DA250DH	2 X 250 W	100 volt	2 x line level	2	No	482 (W) × 44 (H) × 401.8 (D)	5.3

Amplifiers

Power Amplifiers - Four Channel Low Impedance

TOA DA250F / DA550F

- Four channel low impedance digital power amplifiers
- Available in up to 4 x 550 W
- Bridgeable output into 8 ohm
- Input 1 can be sent to all outputs - switchable
- Independent power supply to each channel
- High efficiency 80 to 90%
- Compact design

DA250F

DA550F

Power Amplifiers - Four Channel High Impedance

TOA DA250FH / DA500FH

- Four channel high impedance digital power amplifiers
- Up to 4 x 500 W 100 volt line
- Input 1 can be sent to all outputs - switchable
- Independent power supply to each channel
- High efficiency 80 to 90%
- Compact design

DA250FH

DA500FH

Amplifier	Power	Speaker Output	Inputs	Channels	Bridgeable	Dimensions (mm)	Weight (Kg)
DA250F	4 X 250 W	4 ohms	4 x line level	4	Yes	482 (W) × 44 (H) × 401.8 (D)	6.8
DA250FH	4 X 250 W	100 volt	4 x line level	4	No	482 (W) × 44 (H) × 401.8 (D)	6.8
DA550F	4 x 550 W	4 ohms	4 x line level	4	Yes	482 (W) × 88.4 (H) × 401.8 (D)	9.0
DA500FH	4 x 500 W	100 volt	4 x line level	4	No	482 (W) × 88.4 (H) × 401.8 (D)	9.0

Amplifiers

Power Amplifiers - Eight Channel High/Low Impedance

Biamp MCA Series

Biamp Systems' MCA Series amplifiers offer 8 channels of amplification within one chassis. All models in the MCA series include contractor friendly features that allow for total flexibility in system design. Add to this Biamp Systems' now legendary bulletproof reliability and the MCA series becomes the perfect fit for your next project. All backed by a 5 year warranty.

Features include:

- 8 channels of amplification in one convenient chassis
- Optional transformers for 25/70/100 Volt systems
- Rear panel level controls
- High-pass filter switches per channel (120Hz -12dB/Octave)
- Dual-color signal/peak indicators on front & rear panels
- Front panel indicators for amplifier temp/load faults
- Terminals for remote control of channel levels and muting

Extensive protection:

- Front panel indicators for amplifier temp/load faults
- Self re-setting protection against short-circuit, improper load, and over-temperature conditions.
- Fan cooled design

	Channels	Input Type	Output power 8 Ohms (Watts)	Output power 4 Ohms (Watts)	Bridged output 8 Ohms (Watts)	Signal-Noise Ratio (20Hz-20kHz @ rated power)	Frequency Response	Dimensions	Weight	Power Consumption
MCA8050	8	Balanced 20k Ohms Phoenix terminal	30	50	100	>85dB	20Hz - 20kHz (+0/-1dB)	2RU (Hxwxd) 89 x 483 x 394	13.6 kg	900 W max
MCA8150	8	Balanced 20k Ohms Phoenix terminal	90	150	300	>85dB	20Hz - 20kHz (+0/-1dB)	3RU (Hxwxd) 133 x 483 x 394	15.9 kg	1800 W max

	Options
MCA8050	TDT50 - 50 watt 100V output transformer (per channel) TDT100 - Bridged 100 watt 100V output transformer (per bridged pair)
MCA8150	TDT150 -1 50 watt 100V output transformer (per channel) TDT300 - Bridged 300 watt 100V output transformer (per bridged pair)

Power Amplifiers - Twelve Channel Low Impedance

Niles SI1230

Niles Systems Integration Amplifiers® deliver superb sound and reliability with features specifically tailored to the needs of the custom installer, including multiple turn-on modes, adjustable input level controls, cascade outputs, 12V triggers, and removable IEC power cords.

- All channels are stable into low impedance loads (4 ohms)
- Adjacent channels are bridgeable when more power is required
- Busmatrix input provides the flexibility to assign bus channels to any or all amplifier channels
- Individual input gain controls for each channel
- Gold-plated RCA cascade output jacks
- 3V - 30V AC/DC voltage-trigger
- Assignable bus and dedicated input for each channel
- Independent installer adjustable level controls
- Three turn-on modes: music sense, voltage trigger (accepts 3-30V AC/DC) and manual mode

Model	Channels	Output Power (per channel into 4ohms) WRMS	Output Power (per channel into 8ohms) WRMS	THD	Stable Impedance Loads (2.66ohms)	Rated Current Draw	Dimensions (hxwxd)
SI1230	12	37	30	< 0.1%	no	9A	140mm x 432mm x 380mm; 15kg

Denon POA3012CI

- 12 channels power amplifier with independent module per channel
- 30W per channel (100W per bridged channel pair)
- Digital amplifier technology
- Individual channel level control
- Ethernet IP control
- WEB remote control and setup

Model	Channels	Output Power (per Channel into 4 ohms)	Output Power (per Channel into 8 ohms)	THD	Dimensions	Weight(Kg)
POA 3012CI	12	50	30	0.7%	434(W) x171(H) x 410(D)	19.0

Microphones

Handheld stage/performance

AKG CCS D55S / D44S

- Vocal/general-purpose microphones
- Sturdy die-cast metal body
- Rugged wire mesh cap with internal protective basket

Easy to use microphone for applications ranging from hi-fi recording to karaoke and other speech recording applications.
A good all-round basic microphone.

Product	Technology	Polar Pattern	Frequency response	Dimensions	Weight	Special features
AKG D44S	Dynamic	cardioid	70Hz - 18kHz	226 x 53 mm	290g	Includes 5m cable and mic clip
AKG D55S	Dynamic	cardioid	70Hz - 18kHz	243 x 53 mm	380g	Includes 5m cable and mic clip

AKG Perception Live P5 / P5S / P4 / P3S / P2

- Die cast full metal body
- Gold plated XLR pins
- Hum compensation coil (P 2 and P 4)
- Cardioid and supercardioid polar patterns provide best feedback protection (P3S, P5)

The "Perception Live" series offers dedicated tools for all onstage applications. Including two dynamic instrument microphones, the P 2 and P 4, as well as two dynamic vocal microphones, the P 3 S and P 5 (available with or without an on/off switch).

Product	Technology	Polar Pattern	Frequency response	Dimensions	Weight	Special features
AKG P5/P5S	Dynamic	supercardioid	40Hz - 20kHz	190 x 51 mm	300g	Includes mic clip and bag, P5S has on/off switch
AKG P4	Dynamic	cardioid	20Hz - 16kHz	110 x 78 mm	400g	Includes mic clip and case
AKG P3S	Dynamic	cardioid	40Hz - 20kHz	191 x 51 mm	260g	On/off switch, Includes mic clip
AKG P2	Dynamic	cardioid	20Hz - 16kHz	130 x 132 mm	400g	Includes carry case

D5 D7 C5

AKG Pro Stage D5 / D5S / D7 / D7S / C5

- Extremely rugged vocal/speech microphones
- Smooth frequency response and maximum gain before feedback
- Patented AKG Laminated Varimotion diaphragm (D5 / D7)
- Spring steel wire-mesh grill for extreme ruggedness and reliable control of pops and wind noise

The AKG Pro Stage range of microphones carries innovative mic design based on professional user research. All deliver high end performance and noble sound in any studio and on every stage. With handling noise eliminated you will hear nothing but pristine sound cutting through every mix.

Product	Technology	Polar Pattern	Frequency response	Dimensions	Weight	Special features
AKG D5/D5S	Dynamic	supercardioid	70Hz - 20kHz	185 x 51 mm	340g	Internal dual shock mount, Varimotion diaphragm, Includes mic clip and bag, D5S has on/off switch
AKG D7/D7S	Dynamic	supercardioid	70Hz - 20kHz	185 x 51 mm	340g	Hum compensation coil, Varimotion diaphragm, Includes mic clip and bag, D7S has on/off switch
AKG C5	Condenser	cardioid	65Hz - 20kHz	185 x 51 mm	345g	24-carat gold plated pins and transducer case, Internal elastic suspension, Includes mic clip and bag,

Microphones

Handheld stage/performance

Peavey PVi2XLR

- high quality, cost effective
- on/off switch in handle
- clean, natural sound
- cardioid unidirectional polar response
- low pop and handling noise
- Rugged, die cast steel case
- Low-gloss black finish
- 6 meter XLR cable included

Product	Technology	Pattern	Frequency response	Impedance	Weight	Special features
Peavey PVi2	Dynamic	Cardioid Unidirectional	50Hz - 16kHz	500 Ohms	0.7kg	On/off switch, die cast steel case, low pop and handling noise, Includes 6m cable, mic clip and carry bag

Peavey MSP1

- Complete microphone stand package
- Includes PVi100 dynamic cardioid microphone
- Black powder-coat finish tripod microphone stand with boom arm
- 6 meter microphone cable
- Mic clip
- Convenient nylon carry bag
- Available with XLR cable or 6.35mm cable

Product	Technology	Pattern	Frequency response	Impedance	Weight	Special features
Peavey MSP1	Dynamic	Cardioid Unidirectional	80Hz - 12kHz	500 Ohms	0.2kg	On/off switch; Includes 6m cable (choose XLR or 6.35mm plug), mic clip, stand, carry bag

Microphones

Head Worn

AKG C520L / C555L

- Head-worn microphone with continuously adjustable behind-the-neck headband
- External shock mount for high mechanical-noise rejection
- Miniature gooseneck for precise positioning near the user's mouth

AKG C577L

- Premium flesh tone head worn microphone
- Designed to be invisible and disappear on stage and on camera
- Superior omnidirectional transducer as per CK77

Product	Technology	Polar Pattern	Frequency response	Dimensions	Weight	Special features
AKG C520(L)	Condenser	cardioid	60Hz - 20kHz	195 x 134 mm	26g	Continuously adjustable headband, high noise rejection shock mount, moisture shield, C520 w/ XLR, C520L w/mini XLR
AKG C555L	Condenser	cardioid	80Hz - 20kHz	195 x 134 mm	26g	Continuously adjustable headband, high noise rejection shock mount, moisture shield, includes wind filter
AKG HC577L	Condenser	omnidirectional	20Hz - 20kHz	205 x 145	28g	Flesh tone, continuously adjustable slim headband, high noise rejection shock mount, insensitive to moisture and salts, includes wind filter

CROWN CM311A / 311L

- Differoid noise cancelling technology, which cancels sounds beyond a few inches
- Outstanding gain before feedback
- Complete microphone isolation
- Full, clear and distortion free sound
- Comes with standard XLR (CM311A) or Mini XLR (CM311L)

Microphones

Lapel

AKG CK99L

- Low-profile, cost efficient clip on microphone
- Slight rise above 10kHz for added clarity
- Bass roll off to suppress unwanted ambient noise

AKG C417(L)

- Affordable miniature condenser microphone
- Broadband and flat audio reproduction
- Available with standard XLR or Mini XLR giving flexibility for all broadcast, theatre and wireless applications

AKG CK77WRL / C577WR

- Extremely small omnidirectional lavalier microphone
- Patented dual-diaphragm capsule for suppression of cable noise
- Available with standard XLR or Mini XLR in black or flesh tone (CK77)
- C577 in black with standard XLR connector and phantom power adaptor

Product	Technology	Polar Pattern	Frequency response	Dimensions	Weight	Special features
AKG CK99L	condenser	cardioid	15Hz - 18kHz	23 x 8mm	2.5g	Clip-on mic, natural sound, high noise rejection
AKG C417(L)	condenser	omnidirectional	20Hz - 20kHz	15 x 7.5 mm	8g	Clip-on mic, excellent audio quality, flat audio reproduction, C417L w/mini XLR, C417PP w/ XLR
AKG CK77WRL	condenser	omnidirectional	20Hz - 20kHz	15.5 x 5.5 mm	0.5g	Dual diaphragm capsule, superior audio quality, resistant to moisture and salts CK77WRL in black, CK77WRL/P in flesh tone
AKG C577WR	condenser	omnidirectional	20Hz - 20kHz	15.5 x 5.5 mm	0.5g	As per CK77WRL with standard XLR in black

Microphones

Hanging mics

AKG CHM99B (W)

- Condenser Hanging Microphone
- Cardioid polar pattern
- 10 m (33 ft.) cable
- Especially suited for choir recordings
- Integrated spring steel clamp for optimum alignment
- 125° pickup angle
- CHM99B in black or CHM99W in white

AKG HM1000

- Hanging module with rugged thread connection and self-cleaning, gold plated contacts
- Integrated switchable LED ring
- Integrated bass rolloff filter
- Ideal for ceiling mount theatre applications, music recording, houses of worship and conference speech
- Non-reflective anthracite finish
- 95° pickup angle
- Various capsules can be used to cater for differing uses and environments. See Modular Series capsules for further information

Product	Technology	Pattern	Frequency response	Dimensions	Weight (kg)	Special features
AKG CHM99B (W)	condenser	cardioid	70Hz-18kHz	55 x 13.5 mm	20g	10m cable, 125° pickup angle, Especially suited for choir use, CHM99W in white or CHM99B in black
AKG HM1000	condenser	Various capsules can be used to cater for differing uses and environments. See Modular Series capsules for further information				10m cable, 95° pickup angle, switchable LED ring, bass rolloff filter

Microphones

Goosenecks

AKG Modular Series

The AKG Modular Series is used worldwide and has proven its worth over many years. Bringing together a flexible array of gooseneck lengths, connectors, and interchangeable capsules, the Modular Series addresses three main needs of Installed Sound Contractors:

Flexibility:

With a range of 12 goosenecks (and hangers) and a selection of five capsules, the Modular Series offers unparalleled flexibility and can meet virtually and need.

Reliability:

Close attention to detail in design and production ensures that the components in the Modular Series will deliver years of service without mechanical, electrical or acoustical deterioration.

Low profile:

The Modular Series microphones are compact and finished in matte grey to ensure that they are inconspicuous in use - but without sacrificing robustness or sound quality.

Added reliability - maximum contact area:

The size of the contact area between the microphone capsule and the gooseneck determines the reliability of the entire installation. Instead of the failure-prone conventional point contacts, all Modular Series products use large-area, self-cleaning gold plated contacts that engage in groove-and-tongue fashion. In addition, a hard, rugged thread stabilizes the joint. The extremely deep groove of the thread prevents misalignment and ensures long useful life of all Modular Series products even if they are used in installations that are frequently reconfigured or in mobile systems.

Added reliability - tested for stability:

A high quality gooseneck bends precisely into the desired shape and is resistant to inadvertent readjustment. This stability of shape depends entirely on consistent resilience of the springs inside the gooseneck. Therefore, all Modular Series Gooseneck Modules are subjected to a rigorous quality test during which they are bent into extreme shapes and must keep their shape until bent again. Any gooseneck that does not pass this test is rejected immediately.

Added reliability - useful LED indicator:

All Installation Modules provide an LED ring. A world first, it uses special circuitry to operate off standard phantom power or a separate power supply.

The LED ring indicates system status:

- Mic On: The LED ring glows to indicate that the system has been wired correctly and phantom power is on. Thus, the operator will know at a glance whether the hardware has been installed correctly. There is no need to test each microphone.
- Mic Off: If none of the above functions is desired, the LED ring can be deactivated. In this mode, it is practically invisible.

Added reliability - hidden controls:

The phantom power adapter contains two jumpers that let you activate a 250 Hz bass rolloff and deactivate the LED ring. Since the jumpers are hidden inside the adapter case they cannot be changed unintentionally.

Microphones

AKG GN/HM Series Mics						
Series	GN series	GN E series	GN ESP series	GN E 5pin series	GN 155 Set	HM 1000
Summary	For permanent, screw-on installation. Mini-XLR connector allows installation in an 11mm hole.	Integrated 3-pin XLR for permanent or temporary installation into XLR-equipped bases or compatible shock-mounts	Integrated 3-pin XLR with configurable push-button. For permanent or or temporary installation into XLR-equipped bases or compatible shock mounts. High RFI immunity.	Integrated 5-pin XLR and enlarged LED ring. The LED ring is powered by an external supply and can, therefore, be controlled by external processors. For permanent or temporary installation into 5-pin XLR-equipped bases or compatible shock mounts.	Elegant, floor-standing, low profile gooseneck for use on stage, in TV studios or houses of worship.	Hanging module for Modular Series capsules. Designed to be hung above a stage or choir. Special cable is designed to minimise twisting even when ambient temperature changes. Incorporates adjustable spring-steel hanging clamp.
Models	GN 15, GN 30, GN 50, GN 30 OC	GN 15 E, GN 30 E, GN 50 E	GN 15 ESP, GN 30 ESP, GN 50 ESP	GN 15 E 5pin, GN 30 E 5pin, GN 50 E 5pin	GN 155 Set	HM 1000
Lengths	160mm, 305mm, 500mm, 305mm	235mm, 380mm, 572mm	260mm, 405mm, 600mm	235mm, 380mm, 572mm	1,490mm (supplied with extension tube for taller users)	10 m cable
Connector	3-pin XLR (on 1.5m cable which uses mini-XLR into gooseneck) incorporating LED and bass roll-off jumpers (except GN 30 OC which has unterminated cable)	3-pin XLR incorporating LED and bass roll-off jumpers	3-pin XLR incorporating LED, bass roll-off and switch function jumpers	5-pin XLR incorporating bass roll-off jumper. Two pins in the connector are dedicated to powering the LED ring.	3-pin XLR (on 10m cable) incorporating LED and bass roll-off jumpers	3-pin XLR (on 10m cable) incorporating LED and bass roll-off jumpers
LED ring	Yes, configurable (except on GN 30 OC)	Yes, configurable	Yes, configurable	Extra large, extrenally powered/controlled	Yes, configurable	Yes, configurable
Bass roll-off	Yes, configurable (except on GN 30 OC)	Yes, configurable	Yes, configurable	Yes, configurable	Yes, configurable	Yes, configurable
Switch funtions	n/a	n/a	Push on/push off or push to talk or push to mute or disabled	n/a	n/a	n/a
Supplied with	Screw set with rubber mounting bush	PS3 F-lock locking XLR base	PS3 F-lock locking XLR base	n/a	ST 305 base, extension tube	n/a

AKG CK Modules					
Model	CK 31	CK 32	CK 33	CK 47	CK 80
Summary	General purpose capsule with wide (125 degree) pick-up angle	Designed for recording, surveillance and 'ambient sound' applications	For use in acoutically difficult situations, features narrow (95 degree) pick-up angle	Premium capsule with very narrow (80 degree) pick-up angle, studio quality and clean off-axis response	Cost-effective capsule, optimised for speech applications
Polar pattern	Cardioid	Omnidirectional	Hypercardioid	Hypercardioid	Hypercardioid
Frequency response	50Hz - 20kHz	20Hz - 20kHz	50Hz - 20kHz	20Hz - 20kHz	60Hz - 15kHz
Signal to Noise	73dB	74dB	73dB	74dB	77dB
Max SPL (1% THD)	125dB	125dB	125dB	133dB	125dB

Microphones

Gooseneck

TOA EM800

- Electret condenser, cardioid gooseneck microphone
- Two flex points
- Freq response 60 Hz – 20 kHz
- 120 ohm balanced
- 9 – 52V DC phantom power required

Optional ST800 desktop stand

EM800

ST800

TOA DM524S

- Dynamic unidirectional, balanced paging microphone
- 550mm flexible neck and ON/OFF switch

Optional ST73A stand available

TOA DM524B

- Dynamic unidirectional, balanced paging microphone
- 550mm flexible neck
- Designed to be constantly on

Optional ST73A stand available

Microphones

Gooseneck

AKG CGN 99 Series

- All the same price
- Planning simplified
- Budgets met and time saved
- Gooseneck and microphone capsule inseparable
- Rugged metal front grille protects the capsule and contacts
- Standard XLR connector with gold plated contacts

Product	Technology	Polar Pattern	Frequency response	Dimensions	Weight	Special features
AKG CGN99C/S	Condenser	Cardioid	70Hz - 18kHz	380 x 13.5 mm	160g	125° pickup angle, suited for inexperienced or off-axis talkers, gold plated XLR connector
AKG CGN99C/L	Condenser	Cardioid	70Hz - 18kHz	580 x 13.5 mm	170g	
AKG CGN99H/S	Condenser	Hypercardioid	50Hz - 19kHz	380 x 13.5 mm	160g	95° pickup angle, designed for acoustically difficult environments, gold plated XLR connector
AKG CGN99H/L	Condenser	Hypercardioid	50Hz - 19kHz	580 x 13.5 mm	170g	

AKG C747V11

- Immune to RF interference
- Speech optimized frequency range
- Enhanced hypercardioid polar pattern
- High SPL capability
- Premium microphone for a wide range of applications

AKG Architectural Series

- More than 6,840 different body styles for unlimited freedom of design
- Gold sputtered ultra-low mass diaphragms
- Switchable bass cut filter and preattenuation pad
- Bayonet coupling system with self-cleaning contacts
- 3 different polar patterns to match different room acoustics
- Flat frequency response for excellent acoustic performance

Microphones

Boundary

TOA EM600

- Electret condenser, omnidirectional "button style" boundary microphone
- Freq response 30 Hz – 20 kHz
- 120 ohm balanced
- 9 – 52V DC phantom power required

TOA EM700

- Electret condenser, cardioid boundary microphone
- Freq response 35 Hz – 20 kHz
- 120 ohm balanced
- 9 – 52V DC phantom power required

AKG CBL99

- Extremely small and inconspicuous, lightweight yet rugged
- Delivers superior sound combined with outstanding ease of use
- High sensitivity and low self-noise ensures generous headroom

AKG C562CM

- Small, low-profile boundary layer microphone
- Wide frequency range
- High sensitivity
- Ideal for inconspicuous installation in a room
- Suited for surveillance or recording

AKG C547BL

- "Non-crush" case
- Inconspicuous and rugged
- Hypercardioid polar pattern
- Easy to repaint

Microphones

Boundary

Crown MB3/MB4

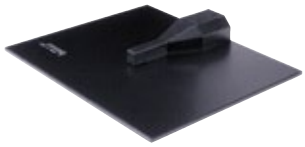
- Supercardioid polar pattern for extended reach and clarity
- PCC® technology (phase coherent cardioid) for clear and natural sound
- Miniature design, virtually disappears when installed
- LED indicator illuminates when mic is active
- Mounts easily into tabletops, walls and ceilings

Crown PZM10(LL)

- Hemispherical polar pattern; clear, intelligible pickup of speech
- Low profile, cylindrical design, perfect for discreet wall or tabletop installations
- PZM10 Mic level or PZM10LL Line level
- PZM10 powered by 12-48 V phantom power, inline XLR connector
- PZM10LL powered by 12-24 V/DC, un-terminated wires

CROWN PZM11 / PZM11LLWR

- Hemispherical polar pattern
- Excellent intelligibility
- Low frequency roll off to reduce HVAC rumble
- Inconspicuous, resembles a light switch (PZM11)
- Weather resistant design for outdoor use (PZM11LLWR)
- Line level output (PZM11LLWR)
- Screw terminal, no need for connectors

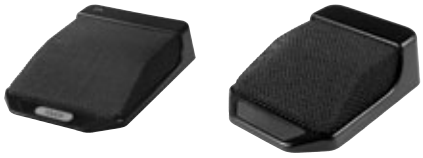


CROWN PZM 30D / 6D / 185 / Sound Grabber II

- Hemispherical polar pattern
- Pressure Zone Microphone® design prevents coloration from surface sound reflections
- Switchable dual-frequency response offers a choice of flat response or rising high-frequency response (PZM30D and PZM6D)
- Rugged detachable cable (PZM30D) Fixed cable for all other PZM versions
- PZM series with XLR termination, Sound grabber II with 3.5mm jack
- Sound grabber II powered by AAA battery (option for PZM185), PZM series use phantom power

CROWN PCC160

- Industry standard stage-floor microphone
- Supercardioid polar pattern rejects the pit orchestra and offers an impressive gain before feedback
- Phase coherent design prevents coloration from surface sound reflections
- Finely crafted, rugged housing withstands the rigors of the stage
- Low profile to be inconspicuously placed on the stage-floor



CROWN PCC170 / 130 (SW)

- Cardioid (PCC170) and Supercardioid (PCC130) polar pattern
- PCC technology (phase coherent cardioid)
- Wide and smooth frequency response
- Exceptional performance and small size
- Three-position bass-tilt switch
- PCC130SW has on/off switch with LED notification when in use

Microphones

Desktop / Paging

AKG D58

- Hypercardioid microphone for use in noisy environments
- Small and inconspicuous
- Noise cancelling close-talking microphone
- Extremely rugged

AKG DGN99 / 99E

- PA microphone with rugged, all-metal body
- Frequency response optimised for intelligibility
- Long useful life even in tough day-to-day usage
- Suppression of unwanted ambient noise

AKG DST 99S

- DGN99 mounted on a table stand with on/off switch
- Fixed coiled XLR cable
- Optimized for intelligibility
- High gain before feedback

TOA PM660

- Desktop paging microphone with PTT button and lock
- PM660 Unbalanced 6.35mm phono jack
- PM660D balanced 5 pin DIN plug
- PM660U Balanced unterminated with extra cable for contact closure
- PM660XLR Balanced 3 pin XLR

TOA EC100M

- Desktop paging microphone with 6.35mm phono jack
- Built in chime

Microphones

TOA Hand Held Paging Mics

TOA PM306

- Omnidirectional unbalanced barrel type paging microphone
- Curled cable and 5 pin DIN plug

TOA PM120

- Handheld unbalanced unidirectional paging microphone C
- Curled cable and a 6.35mm phono plug
- 250 ohm impedance

TOA PM222

- Handheld unbalanced unidirectional paging microphone
- Curled cable and a 6.35mm phono plug
- 500 ohm impedance

Microphones

Accessories

Rolls PB23

- Phantom power supply for single microphone
- Small compact design
- Utilises switching regulators for stable voltage performance
- +48 volt phantom power; 12-18 VDC power supply

Rolls PB224

- Phantom power supply for two microphones
- Operates on two 9V batteries or 12-18VDC input
- Utilises switching regulators for stable voltage performance
- +48 volt phantom power

AKG ST45

Low-profile table stand w/off-centre threaded stub. dia: 115 mm

AKG ST46

Miniature stand for small microphones. dia: 70 mm, h: 45 mm

AKG ST305

Heavy-duty table stand. dia: 170 mm, h: 95 mm

AKG ST1

Folding mini tripod. dia: 260 mm, h: 85 mm

AKG PS3 FLOCK

Lockable panel-mount XLR connector for goosenecks, with integrated 3-pin XLR connector

AKG MFDA

AKG B18

Battery operated phantom power supply for one condenser microphone

AKG B29L

Battery operated power supply and mini mixer for one or two microphones with L-plu

AKG MPAVL

Phantom power adapter with XLR connector for L type Micro-Mics with integrated bass roll off switch

Rolls MP13 Mini Mic Preamp

- XLR and 1/4" ins and outs
- +21 VDC phantom power
- Clip indication

Microphones

Wireless Microphone Receivers

TOA 5000 Wireless Microphone System

The TOA 5000 Series wireless microphone system provides a full range of wireless microphones optimised for both general and specific applications, all compatible with accompanying tuner units and ancillary equipment. Up to 14 channels can be used simultaneously with a line of sight range of up to 120 metres. Desktop or rack mountable receivers are available with a choice of handheld, tie clip or headset microphone options.

TOA WT5810

- 16 selectable channels (14 used simultaneously)
- TOA space diversity technology
- Auto mixing input function
- Squelch function (carrier, noise, tone)
- Usable frequencies scanning and vacant channel search
- Compander circuitry for minimizing ambient noise
- Transmitter low-battery indicator

TOA WT5805

- 64 selectable channels (14 used simultaneously)
- TOA space diversity technology
- Two-line LCD display
- Audio cascade output
- Squelch function (carrier, noise, tone)
- Usable frequencies scanning and vacant channel search
- Compact half-rack size body
- Compander circuitry for minimizing ambient noise
- Transmitter low-battery indicator

TOA WT5800

- 64 selectable channels (14 used simultaneously)
- True diversity technology
- Two-line LCD display
- Antenna and audio cascade output
- Squelch function (carrier, noise, tone)
- Usable frequencies scanning and vacant channel search
- Compact half-rack size body
- Compander circuitry for minimizing ambient noise
- Transmitter low-battery indicator

Microphones

Wireless Microphone Receivers

TOA WT4820/2 x WTU4800

- 2 x 16 selectable channels (14 used simultaneously)
- Antenna cascade output function
- TOA space diversity technology
- Auto mixing input function
- Tuner unit connections accessible from the front
- Mix output/tuner 1 output (selectable), tuner 2 has 2 outputs
- Compact half-rack size body

Receiver	WT5810	WT5805	WT5800	WT4820 With 2 X WTU4800
Power Consumption	130 mA (12 V DC)	200 mA (12 V DC)	250 mA (12 V DC)	250 mA (12 V DC)
Channels	16 (14 Usable together)	64 (14 Usable together)	64 (14 Usable together)	2 x 16 (14 Usable together)
Environment Scanning	Yes	Yes	Yes	No
Diversity System	Antenna Diversity	Antenna Diversity	True Diversity	Antenna Diversity
Output	Mic and Line Level	Mic and Line Level	Mic and Line Level	Mic/Line Level
Antenna	2 x 1/4 wave	2 x 1/4 wave BNC	2 x 1/4 wave BNC	2 x 1/4 wave BNC
Antenna Input	No	Yes	Yes	Yes
Antenna Output (Cascadable)	No	No	Yes	Yes
Antenna Connection	Fixed	BNC	BNC	BNC
Display/Indicator	Channel No. Transmitter Battery Low Indicator	LED - Channel No. Power, RF & AF Metering Transmitter Battery Low Indicator	LCD - Channel No. Power, RF & AF Metering Transmitter Battery Low Indicator	Power, Peak
Audio Output	6.35mm unbalanced and balanced XLR	6.35mm unbalanced and balanced XLR	6.35mm unbalanced and balanced XLR	6.35mm unbalanced and balanced XLR
Cascade Input	6.35mm unbalanced	6.35mm unbalanced	6.35mm unbalanced	6.35mm unbalanced
Adjustable Volume	Yes	Yes	Yes	Yes
Frequency Response	100 - 15,000 Hz ± 3dB	100 - 15,000 Hz ± 3dB	100 - 15,000 Hz ± 3dB	50 – 18,000 Hz, ±3 dB
Rack Mountable	No	Yes	Yes	Yes
Dimensions	206(W) x 41(H) x 153(D) mm	206(W) x 41(H) x 153(D) mm	206(W) x 41(H) x 153(D) mm	206(W) x 41(H) x 153(D) mm
Weight	390g	390g	390g	1030g
Options	-	Rack Mount Kit, External Antenna, Antenna Divider	Rack Mount Kit, External Antenna, Antenna Divider	Rack Mount Kit, External Antenna, Antenna Divider

Microphones

Wireless Microphone Transmitters

TOA WM5220

- Electret condenser cardioid microphone
- 64 selectable channels (14 used simultaneously)
- Maximum input level: 126 dB SPL
- ON/OFF switch prevents the microphone from rolling
- Single AA battery operation, low-battery indicator
- Built-in antenna

TOA WM5270

- Dynamic cardioid microphone designed for vocal use
- 64 selectable channels (14 used simultaneously)
- Max. input level: 142 dB SPL
- Dynamic range: over 95 dB
- Single AA battery operation, low-battery indicator
- Built-in antenna

TOA WM5320

- Omnidirectional electret condenser tie-clip microphone
- 64 selectable channels (14 used simultaneously)
- Maximum input level: 110 dB SPL
- Single AA battery, low-battery indicator
- Connector for 3.mm 5 mini-plugs
- Built-in antenna

TOA WM5320H

- Cardioid electret condenser headset microphone
- 64 selectable channels (14 used simultaneously)
- Maximum input level: 120 dB SPL
- Single AA battery, low-battery indicator
- Connector for 3.5mm mini-plugs
- Built-in antenna

TOA WM5320A

- Cardioid electret condenser headset microphone
- Sweat-resistant headset microphone
- 64 selectable channels (14 used simultaneously)
- Maximum input level: 120 dB SPL
- Single AA battery, low-battery indicator
- Connector for 3.5mm mini-plugs
- Built-in antenna

Transmitter	WM5220	WM5270	WM5320	WM5320H	WM5320A
Transmitter Type	Handheld	Handheld	Beltpack/Lavaliere	Beltpack/Headset	Beltpack/Headset
Microphone	Electret Condenser cardioid	Dynamic Cardioid	Electret Condenser cardioid	Electret Condenser cardioid	Electret Condenser cardioid
Channels	64 (14 Usable simultaneously)	64 (14 Usable simultaneously)	64 (14 Usable simultaneously)	64 (14 Usable simultaneously)	64 (14 Usable simultaneously)
RF Carrier Power	50mW	50mW	50mW	50mW	50mW
Maximum Input Level	126 dB SPL	142 dB SPL	110dB SPL	120dB SPL	120dB SPL
Battery	1 x AA	1 x AA	1 x AA	1 x AA	1 x AA
Battery Life	Over 10 Hours	Over 10 Hours	Over 10 Hours	Over 10 Hours	Over 10 Hours
Indicator	Power/Battery Indicator	Power/Battery Indicator	Power/Battery Indicator	Power/Battery Indicator	Power/Battery Indicator
Antenna	Internal	Internal	Internal	Internal	Internal
Finish	Resin Coating	Resin Coating	Resin Coating	Resin Coating	Resin Coating
Dimensions	46 x 231.5 mm	52.2 x 279.4 mm	142 x 62 x 32 mm	142 x 62 x 32 mm	142 x 62 x 32 mm
Weight	180g (with Battery)	300g (with Battery)	139g (with battery)	139g (with battery)	139g (with battery)

Microphones

TOA Wireless Microphone Kits (Transmitter & Receiver)

	WT5810	WT5805	WT5800
WM5220	WS5200	WT5805HT64EC	WT5800HT64EC
WM5270	WT5810HT64	WT5805HT64	WT5800HT64
WM5320	WS5300	WT5805PT64	WT5800PT64
WM5320H	WS5300H	WT5805PT64H	WT5800PT64H

TOA Wireless Microphone Accessories

TOA YW4500

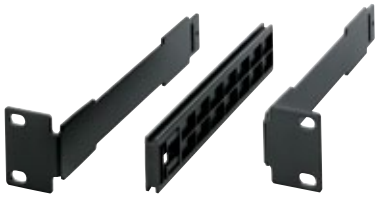
- Powered dipole antenna designed for use with the WT5800, WT5805 and WT4820 receivers
- Connects to the receiver via 75 ohm coaxial cable and features a front mounted attenuator switch

TOA MBWT3

- Rack- mount kit for one of either WT5800, WT5805 or WT4820 receivers

TOA MBWT4

- Rack- mount kit for two of either WT5800, WT5805 or WT4820 receivers



TOA WD4800

- Distributes up to four YW4500 antennas as well as power to four of the WT5800, WT5805 or WT4820 receivers

Microphones

Wireless

AKG Perception Wireless

- 30 MHz tuning bandwidth (depending on local frequency plans)
- 8 hours of operation on a single AA size battery
- Gain control on handheld transmitter
- Smallest and lightest bodypack transmitter in its class
- Compatible with all AKG MicroMics
- Low battery indicator

System	Trans type	Technology	Pattern	Frequency bandwidth	Output connector	Trans power	Battery type	Battery life (NiMH)	simultaneous channels per installation	Included accessories
PW45HT	Hand held	P5 dynamic	supercardioid	40Hz-20kHz	XLR and 1/4"	10mW	Single AA	8 hours	8	Stand adaptor, power supply
PW45PTG	Body pack	n/a (guitar cable)	n/a (guitar cable)	40Hz-20kHz	XLR and 1/4"	10mW	Single AA	8 hours	8	Power supply
PW45PTL	Body pack	CK99L lavalier	cardioid	40Hz-20kHz	XLR and 1/4"	10mW	Single AA	8 hours	8	Power supply
PW45PTH	Body pack	C544L head worn	cardioid	40Hz-20kHz	XLR and 1/4"	10mW	Single AA	8 hours	8	Power supply

AKG WMS450 Series

The AKG WMS 450 is your best choice for any application calling for a solution that is more flexible than a simple plug-and-play system yet easy to set up and operate. The WMS 450 provides cost-efficient, high-performance solutions for situations where several radio mics will be used simultaneously, including gigs at small clubs, small stages, or regional events.

- Highly flexible wireless system, ready for immediate use in demanding applications
- Features perfect audio transmission
- AKG Microphone Technology: C 5, D 5 and C 555
- Outstanding rugged finish for hand-held and pocket transmitters

System	Trans type	Technology	Pattern	Frequency bandwidth	Output connector	Trans power	Battery type	Battery life (NiMH)	Channels per installation	Optional accessory
WMS450HTD	Hand held	D5 dynamic	supercardioid	35Hz-20kHz	XLR and 1/4"	50mW	Single AA	8 hours	12	CU400 drop-in charger
WMS450HTC	Hand held	C5 condenser	cardioid	35Hz-20kHz	XLR and 1/4"	50mW	Single AA	8 hours	12	CU400 drop-in charger
WMS450PTG	Body pack	n/a (guitar cable)	n/a (guitar cable)	35Hz-20kHz	XLR and 1/4"	50mW	Single AA	8 hours	12	CU400 drop-in charger
WMS450PTL	Body pack	C407L lavalier	omnidirectionl	35Hz-20kHz	XLR and 1/4"	50mW	Single AA	8 hours	12	CU400 drop-in charger
WMS450PTH	Body pack	C555L head worn	cardioid	35Hz-20kHz	XLR and 1/4"	50mW	Single AA	8 hours	12	CU400 drop-in charger

Microphones

AKG WMS4500

The WMS4500 true diversity system provides maximum ease of use and the widest range of functions in its class. Its accurate battery life readout is a previously unavailable, invaluable advantage in live sound applications. A complete line of accessories makes the WMS4500 series your first choice for every application.
Auto Setup and Environment Scan functions automatically analyse the local RF environment, find usable frequency groups, and set frequencies. The optional HUB 4000 Q integrates the SR 4500 into a HiQnet® system. With the PC control software System Architect, setting up and monitoring highly complex systems is incredibly easy. A logic output allows remote control of external devices, e.g. an automatic microphone mixer.

AKG SR4500

- True diversity UHF receiver with all-metal case
- Auto Setup, Environment Scan, and Rehearsal functions for quick and easy setup
- Backlit, programmable color display and jog wheel with selectable warning signal for ease of use
- Output for controlling external devices
- Integrated data interface for controlling and monitoring from a PC via System Architect

AKG PT4500

- Bodypack transmitter with rugged aluminium body
- 30 MHz wide UHF band
- Backlit display and jog switch for ease of use
- 50mW RF output for maximum immunity to interference and dropouts
- Compatible with all AKG MicroMic lapel and headsets
- Operates for up to 15 hours on AA size dry batteries, 12 hours on optional BP 4000 battery pack with integrated Smart Battery Management System
- Charging contacts for easy battery charging on optional CU4000 drop-in charger

Microphones

HC577L

C520L

C555L

C417L

CK77WRL

CK97CL

CK99L

C411L

C516ML

C518ML

C519ML

Microphones

AKG WMS4500

AKG HT4500

- 50mW RF output for maximum immunity to interference and dropouts
- Operates for up to 15 hours on AA size dry batteries, 12 hours on optional BP 4000 battery pack with integrated Smart Battery Management System
- 30 MHz wide UHF band
- Choice of six interchangeable microphone capsules
- Backlit display and jog switch for ease of use
- Charging contacts for easy battery charging on optional CU4000 drop-in charger

Capsules

D5WL1 D7WL1 C5WL1 C535WL1

System	Type	Technology	Pattern	Frequency bandwidth	Connectors	Transmitter power	Battery type	Battery life (NiMH)	simultaneous channels per installation
SR4500	Receiver	N/A	N/A	35Hz-20kHz	XLR and 1/4"	N/A	N/A	N/A	19
HT4500	Hand held	Condenser: C5, C535 Dynamic: D5, D7 See stage mics	Various	35Hz-20kHz	N/A	50mW	AA / BP4000	15 / 12 hours	19
PT4500	Body pack	Compatible with all AKG Micromics	Various	35Hz-20kHz	Mini XLR	50mW	AA / BP4000	15 / 12 hours	19

System	Included accessories	Optional accessory	Special Features
SR4500	Rack mounting kit, 2 x antennas, power supply	CU4000 drop-in charger	All metal true diversity receiver, battery status monitoring, tone squelch, Auto set-up, Environment scan
HT4500	Stand adaptor, 2 x AA batteries	CU4000 drop-in charger	Choice of 4 interchangeable capsules, anti-slip finish, backlit display
PT4500	Belt clip, 2 x AA batteries	RMS4000 external mute switch, CU4000 drop-in charger	Choice of all AKG Micromics, rugged aluminum finish, backlit display

Microphones

AKG Wireless Microphone Management System

AKG HUB 4000Q

The HUB 4000 Q enables you to connect up to eight AKG devices to any Harman Professional HiQnet system. It is a true plug and play device, so all you need to do to install the HUB 4000 Q is connect it to your computer via a commercial CAT-5 network cable. For large wireless systems, you can of course add several HUB 4000 Qs using standard Ethernet switches (or routers, wireless hubs, etc.), allowing you to configure and monitor the entire setup from a single computer.

- HiQnet Ethernet interface for connecting up to eight AKG devices to a HiQnet network
- Monitor and control a wireless system with Harman System Architect via HiQnet
- Monitor and control a wireless system with the AKG Wireless iPhone App via HiQnet
- Supports DSR 700 (DMS 700), SST 4 (IVM 4), and SR 4500 (WMS 4500)

AKG System Architect

The Harman System Architect™ PC software will automatically identify all HUB 4000 Qs connected to the computer. The channel-oriented user interface in System Architect provides intuitive monitoring of all wireless channels. 1 Click Setup makes frequency management for your wireless system as easy as giving a single click.

- Control and monitor multichannel wireless systems from a PC
- User interface optimized for monitoring and setting up large wireless systems
- 1 Click Setup function provides automatic frequency setup and management for the wireless system with a single click.
- Tools like Device Manager, Environment Scan, RF Monitor, and Programmer Guide for manual system setup

AKG Wireless iPhone App

The AKG Wireless iPhone App enables you to monitor and control a complete AKG wireless system from your iPhone or iPod touch via Wi-Fi™. The AKG Wireless iPhone App is the fastest and easiest way to check the wireless connection between a transmitter and a receiver on stage. Its RF Monitor function lets you check and detect radio shadow areas right on stage. Finding dropouts is as easy as rotating the iPhone or iPod touch from portrait to landscape mode and pacing the stage. This starts RF Monitor that draws a graph of RF signal strength over time on the display, showing exactly where the RF signals drops below a usable level as you walk around.

- Control and monitor wireless systems from an Apple iPhone, iPod touch or iPad via Wi-Fi
- RF Monitor for checking the radio link on stage
- Single-touch frequency setup and management for the entire system
- Wireless troubleshooting tool

Microphones

AKG DMS700 V2

AKG's revolutionary DMS 700 is designed to deliver the very best audio quality, channel quantity and quick and easy operation. Up to 155 MHz frequency range of transmitters and receiver gives the user the necessary flexibility even in a crowded RF environment, and the state of the art encryption offers security for sensitive audio transmissions. Ideal for broadcast applications, conferences, courtrooms, houses of worship, stage and music performances. The digital audio transmission finally eliminates distortions and significant noise levels at high audio frequencies known from analogue wireless systems. It also protects you from bad audio performance due to low RF link quality. The new hardware offers reduced latency, improved link quality and 512-bit encryption.

AKG DSR700 V2

- Digital true-diversity receiver with 19" all-metal case
- 512-bit signal encryption prevents unintended signal reception for sensitive applications
- Ultra-wide tuning range of 155 MHz
- Quick setup mode, spectrum analyser and rehearsal functions for easy setup
- Infrared link of all frequency and setup data to the transmitter
- Transmitter batteries status monitoring
- Low-cut filter, 3-band Equaliser, dbx Compressor and dbx Limiter included

AKG DPT700 V2

- Rugged and compact metal construction
- Switchable RF power (10/20/30/50 mW)
- Selectable input gain (0/10/20 dB)
- 8 hours battery life and 7-segment battery status display
- Infrared data link
- Status data transmission to receiver
- Integrated charging contacts for 2 hour quick-charging of rechargeable batteries inside transmitter
- Professional 3 Pin mini-XLR audio input

Microphones

HC577L C520L C555L

C417L CK77WRL CK97CL CK99L C411L C516ML C518ML C519ML

AKG DHT700 V2 D5/C5/D7

- Rugged all-metal construction
- Switchable RF power (10/20/30/50 mW)
- Available with D5, D7 or C5 microphone capsule
- 8 hours battery life and 7-segment battery status information
- Infrared data link
- Status data transmission to receiver
- Integrated charging contacts for 2 hour quick-charging of rechargeable batteries inside transmitter

Microphones

AKG Wireless Accessories

CU400 Charger

- Drop-in charging
- Two universal charging slots
- Charging time <2 hours
- Status LEDs
- For WMS450 System

CU4000 Charger

- Charger with two charging compartments for two HT 4500, PT 4500 transmitters, or BP 4000 battery packs
- Smart current management system permanently monitors battery parameters to prevent over charging and suggest recovery cycle
- Microprocessor controlled charge/discharge monitoring function
- One-hour quick charging of two transmitters

BP4000 Battery

- Fully charged BP 4000 battery pack lasts for 12 hours and can be charged more than 1000 times to keep operating costs low
- Built in active monitoring circuitry
- Accurately calculates the remaining battery life

CU700 Charger

- 2-hour quick charging.
- Two slots that fit both DHT 700 and DPT 700.
- LED status information
- Optional 19-inch rack mount unit

PSU4000

- Central power supply
- Powers up to 3 PS 4000Ws for DC connecting 12 SR 450, SR 470, SR 4500
- Powers CU 4000, HUB 4000
- 3 DC outputs
- IEC power cable with universal power supply that operates anywhere in the world

PS4000W

- BNC Multi-Coupler
- Supplies antenna signal and DC power for four SR 450, SR 470 or SR 4500 receivers
- Two expansion outputs allow signal cascading up to 3 additional PS 4000Ws from one antenna feed
- Eight BNC antenna signal + DC outputs
- LED status indicators that show antenna and/or cable problems

SRA2 W and B/W

- Wideband directional antenna
- Indoor or outdoor use, for larger coverage areas.
- Integrated high-performance antenna booster for use with long cable runs (SRA2 B/W)
- Water-resistant case, BNC output
- Remote powering option and status LED

RA4000 W and B/W

- Omnidirectional wideband booster antenna
- Indoor or outdoor use, for near-field antenna setups with no preferred direction
- Integrated high-performance antenna booster for use with long antenna cables (RA4000 B/W)
- Remote powering option and status LED
- Rugged, water-resistant case, BNC output

AB4000

- High-performance antenna booster for inserting into long antenna cable runs.
- One AB 4000 can compensate for approx. 17 dB of cable attenuation.
- Up to three AB 4000 boosters can be used in series for extremely long cable runs.
- Water-resistant case with BNC input and output and status LED
- DC Input

ASU4000

- Remote power supply for complex antenna networks
- BNC input and output
- Locking DC input
- Status LED
- Water-resistant case

RMS4000

- Remote Mute Switch lets a user mute and unmute PT 450, PT 470 or PT 4500 transmitters
- Easy, discreet and secure use when the transmitter is under vestments or a costume
- Cable length: 110 cm

ZAPD21

- 2-into-1 antenna combiner
- For indoor and outdoor use of near-field antenna setups.
- Can be used either to split signals or combine them as needed.

Microphones

Revolabs

Revolabs delivers innovative wireless audio systems for both enterprise collaboration and professional audio applications. Revolabs products are used throughout the world and across a wide range of industries including houses of worship, corporations, financial services, education, medical, legal and more.

Revolabs Wireless Microphone Systems provide superior audio performance for transcription, live sound, video- and audio-conference calls, distance learning, webcasts, and other audio applications.

The Revolabs products facilitate natural mobility by allowing participants to move around with no wires to worry about. The Revolabs Wireless Microphones are wireless, secure, rechargeable, and flexible, and most are impervious to GSM noise. Revolabs MaxFlex™ technology allows the microphones to be interchangeable and seamless within the product lines.

There is a Revolabs Wireless Microphone available for every application: wearable, omnidirectional, and directional tabletop form-factors, as well as adapters for handheld or earset microphones. Signals from microphone to receiver are encrypted (128-bit proprietary algorithm) and use spread-spectrum / frequency-hopping transmission, making interception virtually impossible.

Revolabs wireless technology is also available in innovative products such as the XTAG BT personal wireless microphone system (for use with a mobile phone or PC) and the FLX telephone conference system (available for analogue IP phone systems).

Revolabs products operate in the DECT and Bluetooth spectrum allocations, which are not subject to the uncertainties that cloud the future for traditional wireless systems that operate in the 600MHz to 800MHZ frequencies. Investment in a Revolabs solution will yield returns well into the future!

Microphones

Revolabs Receivers

Revolabs HD Single and HD Dual receivers

The HD Single and HD Dual receivers are compact, table-top units designed for use where just one or two microphones are required: in a classroom, lecture theatre or small conference room. These receivers support the full range of Revolabs HD microphones, and offer a return audio channel from receiver to microphone, that can be used for translation, prompting or any other application. The receivers are supplied with a matching single- or two-microphone charging dock.

Revolabs HD Venue receiver

The latest addition to the Revolabs HD family, the HD Venue receiver supports two wireless microphones in a 19" rack-mount enclosure. The HD Venue is supplied with a two-microphone charging dock, and can operate with any of the HD microphones. Ideal for smaller applications, the HD Venue has two switchable channel sets, allowing simultaneous operation of two units (four microphones) within a coverage area.

	Channels	Max Range	Frequency Response	Termination	Charging Dock	Dimensions (WxHxD)	Weight
HDSGLRX	1 microphone channel 1 channel return audio path	45m	50Hz - 20KHz	3.5mm Balanced Mic/Line level	Single port	Receiver: 132 x 25.4x 82.5 mm Charger Base: 117.5 x 25.4x 79 mm	0.25Kg
HDDUALRX	2 microphone channels 2 channel return audio path	45m	50Hz - 20KHz	3.5mm Balanced Mic/Line level	Dual Port	Receiver: 132 x 25.4x 82.5 mm Charger Base: 117.5 x 25.4x 79 mm	0.25 Kg
HD VENUE	2 microphone channels 2 channel return audio path	91m	50Hz - 20KHz	XLR/6.35mm Jack Balanced Mic/Line level	Dual Port	(W x H x D): 430 x 44.2 x 203mm Charger Base: 117.5 x 25.4x 79 mm	0.9Kg

Microphones

Revolabs Receivers

Revolabs HD Executive receivers

The Revolabs HD Executive receivers support either four (HDEXEC4) or eight (HDEXEC8) microphones simultaneously from a slim 1RU receiver. These receivers, which are supplied with matching four-microphone or eight-microphone charging docks, support the full range of HD microphones. A linking bus allows up to six receivers to operate simultaneously in a coverage area: up to 48 microphones, with no complex frequency planning.

Remote control of mic muting (for example, from a Biamp Audia, Nexia or Tesira system) allows optimum configuration of teleconferencing systems and minimises AES convergence times.

An optional software package provides detailed remote control and monitoring for system managers.

	Channels	Max Range	Frequency Response	Connectivity/Control	Termination	Charging Dock
HDEXEC4	4 microphone channel 4 channel return audio path	91m	50Hz - 20KHz	Ethernet (RJ45) RS-232 - for control sys	Balanced Mic/Line level Barrier strip	4 port
HDEXEC8	8 microphone channels 8 channel return audio path	91m	50Hz - 20KHz	Ethernet (RJ45) RS-232 - for control sys	Balanced Mic/Line level Barrier strip	8 port

	Dimensions (WxHxD)	Weight	Power consumption
HDEXEC4	Receiver: 430 x 44.2 x 203.2 mm Charger Base: 210 x 25.6 x 109 mm	1.31Kg 0.49 Kg	15 Watts 20Watts
HDEXEC8	Receiver: 430 x 44.2 x 203.2 mm Charger Base: 210 x 25.6 x 109 mm	1.31Kg 0.49 Kg	15 Watts 20Watts

Microphones

Revolabs HD microphones

All mics share the following features:

- Single button controls muting and pairing
- LED indicator shows mute and pairing status
- Return audio available on 3.5mm connector
- Simple drop-in battery charging on the charging dock
- 50Hz – 20kHz audio bandwidth
- Impervious to GSM phone interference
- 128-bit encryption
- Wireless frequency: 1.88GHz – 1.90GHz
- Up to eight hours talk time
- Fully charged in two hours (75 minutes to 75% charged)

HDMICWEAR – wearable microphone

- Omnidirectional pickup
- Rotating clip

HDMICOMNI – omnidirectional desktop microphone

- 360-degree pickup
- Vibration isolating feet

HDMICDIR

- 90-degree pickup
- Vibration isolating feet

HDMICXLR – adaptor for dynamic mic with XLR connector

- Plugs straight into the base of a dynamic mic

HDMICCOUNTRY – adaptor for Countryman headset mics

- 1.5V phantom power
- TA4F connector for Countryman earset

Microphones

Revolabs HD microphones - Accessories

Revolabs extension antennas

- Extend antennas up to two metres from the front of the receiver
- Use to overcome physical or RF obstructions
- Supplied with cables, connectors, rack panel to mount antennas (use antennas supplied with the receiver)
- Available for four-channel receiver (HDEXEC4) and eight-channel receiver (HDEXEC8)

Revolabs Always-On adaptor

- Plug-in adaptor that delivers full-time power to a Revolabs HD microphone
- Use where always-on functionality is required

Revolabs Charging Docks

- Every HD receiver is supplied with a matching charging dock
- Docks also available separately as replacements or for situations where a single receiver supports several rooms (each room needs a charging dock)

	Charging ports	Power supply	Suits Receiver	Firmware connection	Dimensions (WxHxD)	Weight	Power consumption
HDSGLCHG	1	yes 1.8m cable	HDSGLRX	-	117.5 x 25.4x 79 mm	0.147Kg	<10 Watts
HDDUALCHG	2	yes 1.8m cable	HDDUALRX, HDVENUE	-	117.5 x 25.4x 79 mm	0.147Kg	<10 Watts
4HDCHG	4	yes 1.8m cable	HDEXEC4	MiniUSB	211 x 109 x 25.6 mm	0.49Kg	15Watts
8HDCHG	8	yes 1.8m cable	HDEXEC8	MiniUSB	211 x 109 x 25.6 mm	0.49Kg	15Watts

Revolabs XTag

Revolabs XTag Bluetooth

- Revolabs microphone technology with Bluetooth connectivity
- Connects to PC (for audio/video conferencing, podcasting or dictation) – Bluetooth dongle included
- Connects to mobile phone
- WBS (Wide Band Speech) profile delivers greater audio bandwidth than other Bluetooth devices
- Return audio channel supports earbuds for two-way privacy

Technology	
Bluetooth	BT 2.1 + EDR, Class II
Supported Profiles	HFP, A2DP,WBS
Audio Bandwidth	80-8,000 Hz
Battery life (talk time)	8 hours
Charge time	2 hours

Microphones

Revolabs FLX - Available late 2011

The Revolabs FLX™ is designed specifically for mid- to small-sized conference rooms, executive offices and SoHo environments.

Unlike traditional conference phones, the wireless Revolabs FLX is composed of several distinct components, giving unprecedented freedom with respect to placement and accessibility of the speaker, microphones and dial pad. Microphones and speaker can be placed throughout an office to optimise sound quality. In an executive office, the speaker and a microphone can be on a small conference table, while the second microphone is on the executive's desk, allowing natural participation from different areas of the room. No more shouting across the room so that listeners on the other end of the conference call can hear you! And the Revolabs FLX dialler, which is used to set up a conference call, also works like a telephone for handset calls. Private conversations can be held at the start, middle or end of a conference call.

The Revolabs FLX can also be used as a fully wireless audio interface for video conference systems – it is compatible with all major video codec brands. And built-in Bluetooth connectivity can be used to connect the FLX to a suitably enabled mobile phone or computer!

Key benefits:

- Fully wireless (microphones, speaker and dialler)
- Analogue phone or VoIP connectivity
- Bluetooth connection to PC or mobile phone
- RF Armour technology eliminates GSM interference
- Noise cancellation built into microphone
- Acoustic echo cancellation built into base unit
- Hand-held dialler has colour display and can be used for private calls
- Up to eight hours battery life, two hours charge time

Audio	
Bandwidth	80 -11,000 Hz
Channels	2 or 4 microphone channels per system
Radio Frequency	1.88 to 1.90 GHz (DECT EU)
Noise Cancelation	Active on the microphone
Echo Cancelation	Acoustic echo canceller for speaker/microphone Line echo canceller for analog telephone line
RF Shield	No cell phone interference due to RF Armor™ technology
Speaker And Microphones	
Battery life (talk time)	Up to 8 hours
Charge time	2 hours
Base Station	
Telephone	RJ11 (POTS), RJ45 (VOIP)
Analog IN OUT AUX OUT	Line level input, 2 outputs, line level or mic level
Dialer	
Display	High resolution color LCD display
Phonebook	Up to 99 entries
Keypad	12 key telephone keypad, 2 context sensitive soft keys answer/hang-up keys, 5 key cursor and control panel
Power	
Base Station	5VDC, 5W
Charger Tray	15VDC, 15W
Battery life	Up to 8 hours
Charge time	2 hours

Microphones

Wireless Infra-Red

TOA's new wireless microphone system uses infrared transmission, thereby eliminating the problems associated with RF (VHF/UHF) type systems. The components of the IR Wireless Microphone System are the IR-702T 2-Channel IR Tuner, the IR-200M Hand-Held IR Microphone Transmitter, the IR-300M Body-Pack Microphone with External Mic Input, three IR remote receivers (IR-500R, IR-510R, IR-520R), as well as the IR-200BT Rechargeable NiMH Batteries and IR-200BC Charging Station.

The system has an optional 4-way distributor, offering flexibility and coverage reliability without compromising privacy. Both the Infrared Wireless Microphone System and the Infrared Conference System (TOA's TS-800 and TS-900 Series IR Conferencing Systems) can be used simultaneously in the same location.

TOA IR200M

- Infra-red hand-held microphone
- Two selectable channel frequencies
- Electret condenser capsule
- Two "AA" alkaline or re-chargeable batteries

TOA IR300M

- Lanyard style microphone
- Built electret condenser microphone or external microphone
- Two selectable channel frequencies
- Two "AA" alkaline or re-chargeable batteries

Transmitters	IR200M	IR300M
Transmitter Type	Handheld	Lanyard
Microphone	Unidirectional electret condenser	Unidirectional electret condenser
Channels	2	2
Maximum Input Level	120 dB SPL	120 dB SPL
Battery	2 x "AA" alkaline or rechargeable	2 x "AA" alkaline or rechargeable
Battery Life	Approx 8 hours - rechargeable or 6 hours - alkaline	Approx 8 hours - rechargeable or 6 hours - alkaline
Dimensions mm	ø37 × 241.8	64 (W) × 91.3 (H) × 27.3 (D)
Weight	170 g (with batteries)	130 g (with batteries)

TOA IR702T Tuner

- 2-channel fixed-frequency tuner
- Accepts signal from up to four infrared receivers
- Two line outputs, one with a MIX output (switches channels A and B)
- Rack-mountable with optional brackets (MB-WT3/MB-WT4)

Microphones

Wireless Infra-Red

TOA IR500R/510R/520R IR Receivers

- Wall and ceiling mount models available
- Power indicator
- Connects via 75ohm coax cable
- Range up to 15 metres line of sight

IR Recievers	IR500R	IR510R	IR520R
Type	Wall mount	Ceiling mount	Wall mount
Reception Area	Approx 15m	Approx 8m radius	Approx 15m
Reception Angle	80 deg x 80 deg +/- 30 deg adjustment	150 deg	80 x 80 deg
Connection Terminal	75 Ω, BNC jack	75 Ω, BNC jack	75 Ω, BNC jack
Dimensions (mm)	70 (W) × 120 (H) × 72(D)	ø120 × 71.3 (H)	84.5 (W) × 63.5 (H) × 32(D)
Weight	220 g	205 g	100 g

TOA IR700D Distributor

- 4 receiver mixing outputs and 2 distribution outputs
- By using the IR-700D in conjunction with IR-702T and YW-1022/1024, 16 infrared receivers can be configured
- Rack-mountable with optional brackets (MB-WT3/MB-WT4)

TOA IR200BC Battery Charger

- Drop in battery charger
- Accepts two of either IR200M and/or IR300M
- Comes with adaptor for IR200M hand held mic

TOA YW1022Y/1024Y Splitter

- One to two or one to four way splitter
- 75 ohm BNC connector

TOA YPM101 Microphone

- Electret condenser unidirectional tie clip microphone
- Maximum input 115dB SPL
- 3.5mm phono plug connector

AKG Headphones

K702

- Open-back dynamic reference headphones ideal for monitoring, mixing and mastering applications
- Award winning flat wire voice coil
- Patented Varimotion two-layer diaphragm
- "3D Form" ear pads for perfect fit
- Individually tested and numbered

K271MKII

- Professional circumaural hi-fi stereo studio headphones for onstage and studio use
- Leatherette and velvet ear pads
- High noise attenuation
- Automute feature mutes headphones when they are taken off
- Patented Varimotion speakers
- Single-sided, detachable 3 m cable and 5 m coiled cable

K240MKII

- Professional hi-fi stereo studio headphones
- Self-adjusting headband for optimum fit
- Leatherette and velvet ear pads
- Semi-open, circumaural design
- Patented Varimotion speakers
- Single-sided, detachable 3 m cable and 5 m coiled cable

K240S

- Classic professional, stereo studio headphones
- Natural uncolored sound
- Semi-open circumaural design
- Dynamic wideband speakers
- Self-adjusting headband for optimum fit
- Single plug-in cable for ease of use

K171MKII

- Professional hi-fi stereo studio headphones for broadcast and DJ use
- Leatherette and velvet ear pads
- High ambient noise attenuation
- Rugged construction for tough handling
- Patented Varimotion speakers
- Single-sided, detachable 3 m cable and 5 m coiled cable

AKG Headphones

K141MKII

- Professional hi-fi stereo studio headphones
- Undistorted sound even at high volume levels
- Leatherette and velvet ear pads
- Semi-open supraaural earphones
- Patented Varimotion speakers
- Single-sided, detachable 3 m cable and 5 m coiled cable

K121S

- Semi-open Supraaural headphones
- Self-adjusting headband
- Entry level professional headphones for various applications
- Equipped with a 3.5/6.3 mm stereo adapter
- Designed for ambitious and rugged use

K99/77

- Semi-open (K99) or closed back (K77) hi-fi stereo headphones
- Low weight for excellent comfort
- Skin compatible leatherette ear pads
- Excellent price/performance
- Self-adjusting headband for optimum fit

K44

- Closed back circumaural headphones
- Self-adjusting headband for optimum fit
- The most cost effective studio or home recording professional headphones on the market
- True all-round performance with solid bass and clean highs
- Leatherette earpads

K10/2

- Extremely rugged, supraaural dynamic mono headphones
- Exceptionally light, with hygienic and easy to clean earcups
- Ideal headphones for conference, tour guide and interpretation applications
- Fully serviceable

AKG Headsets

HSC 171 / HSD 171

- Professional headset derived from K 171 Studio headphones
- Closed-back earphones
- Shock mounted condenser (HSC) or dynamic (HSD) microphone
- Switchable bass cut filter
- Noiseless microswitch for automatic microphone muting
- Lightweight design for long usage periods

HSC 271 / HSD 271

- Professional headset derived from K 271 Studio headphones
- Closed-back earphones for optimum ambient-noise attenuation
- Shock mounted condenser (HSC) or dynamic (HSD) microphone
- Noiseless microswitch for automatic microphone muting
- Headphones auto-mute function
- Switchable bass cut filter

Cable	HSD 171	HSD 271	HSC 171	HSC 271	Connector	Connectors	
						Microphone	Headphone
MKHS Studio C			✓	✓	3pin XLR male + 1/4" jack		
MKHS Studio D	✓	✓			3pin XLR male + 1/4" jack		
MKHS PC			✓	✓	3.5mm jack + 3.5mm jack		
MKHS XLR 4D	✓	✓			4pin XLR female		
MKHS XLR 5D	✓	✓			5pin XLR male		

Record and Replay

CD Players

Denon Professional DNC615 CD player

- Professional quality single tray CD player
- Shock proof memory (approx 10 sec)
- Auto cue (preset selectable)
- Pitch control (+/- 12%)
- MP3 playback

Denon Professional DNC620 CD player

- Next generation broadcast CD player
- WAV and MP3 playback
- Cue to music (with dedicated button)
- Pitch control +/- 12%
- Slot load mechanism
- RS232 control

Denon Professional DNC635 CD player

- Installation grade single tray CD player
- Shock proof memory (approx 10 sec)
- Auto cue (preset selectable)
- MP3 playback
- Pitch control +/- 12%
- RS232 control

Denon Professional DNC640 networkable CD player

- Network Audio/CD player
- CD-DA, CD-R/RW, DVD-R/RW, DVD+R/RW playback
- Shock proof memory (approx 10 sec)
- Auto cue (preset selectable)
- Pitch control +/- 12%
- RS232 control

Denon DCM500AEBK 5 Disc CD Player

- 5-disc carousel CD changer
- CD-R/RW Playback
- MP3 and WMA Decoders
- Advanced Multilevel Noise Shaping DAC
- 8-Times Oversampling Digital Filter

Model	Disk Type	Audio Formats	Inputs	Outputs	19" Rack Height
DNC615	CD-DA, CD-R/RW	cda, mp3	IR, Remote	Line Out (RCA Jack), Digital Out (RCA Jack), Headphones (6.35mm Phone Jack)	2RU Rackmount
DNC620	CD-DA, CD-R/RW	cda, wav, mp3	RS232C, Parallel, IR	Line out (XLR/RCA Jack), Digital out (XLR/RCA Jack - AES/EBU or SPDIF), Headphones (6.35 mm Phone Jack)	1RU Rackmount
DNC635	CD-DA, CD-R/RW	cda, mp3	RS232C, Parallel, Fader Start, IR	Line out (XLR/RCA Jack), Digital Out (RCA Jack), Headphones (6.35 mm Phone Jack)	2RU Rackmount
DNC640	CD-DA, CD-R/RW, DVD-R/RW, DVD+R/RW	cda, wav, mp3, wma	LAN, RS232C, GPIO, IR	Line out (XLR/RCA Jack), Digital out (XLR/RCA Jack - AES/EBU or SPDIF), Headphones (6.35 mm Phone Jack)	1RU Rackmount

Record and Replay

Solid State Playback Devices

TOA PM20EV

- Paging microphone for announcements and playback of recorded messages
- Total recording time of 3 minutes,
- Load messages with supplied software or via the paging microphone

TOA EV20A

- Portable sound recorder with a built in infrared sensor
- Up to 3 minutes recording time with the supplied 16MB SmartMedia card or six minutes with a 128MB card
- Messages can be recorded via the USB port with the dedicated software or by using the microphone or line level input
- Message activation can be by either the InfraRed sensor, closed contact, or the built in interval timer

TOA EV20R

- Digital announcer allows up to four messages with a total recording time of 3 minutes
- Four recording and four output channels and a USB input
- Messages can be recorded via the USB input with the dedicated software, or from a microphone or line level input
- Activation of messages from either the front panel or via closed contact on the rear
- Line level input and 3 watt speaker output
- Optional Accessories
- MBWT3 or MBWT4 rack mount kits

TOA EV350R

- A record/playback unit which uses two TOA EVCF128M compact flash memory cards
- Up to 2 hours of recording time is available depending on the sampling rate and sentence structure used
- Up to 8 messages can be recorded and triggered via closed contact or up to 128 messages when the binary control option is used

TOA TT104B

- A programmable timer designed as part of a flexible and reliable announcement system
- Features four independent output channels, with a program capacity of 30 events per channel
- Each channel can be programmed for a week and provides closed contact output
- When installed in conjunction with the EV20R it makes an ideal school bell system

Record and Replay

Solid State Playback Devices

Denon Professional DNF300 Digital Audio Player

- Plays uncompressed CD-quality WAV (44.1 kHz) and MP3 files from SD/SDHC card
- ±20% pitch control and ±20% tempo adjust
- Control via front panel or IR remote (included)
- Dual microphone inputs with level control and music ducking for paging functionality
- Unbalanced RCA output
- Auto cue and cue to music functions with audible, frame accurate search capability

Denon Professional DNF400 Digital Audio Player

- Plays uncompressed WAV (44.1 and 48 kHz) and MP3 files from SD/SDHC card
- Easy-to-operate tape-recorder type control panel
- Program playlists via .m3u files
- Balanced (Phoenix-type) and unbalanced audio outputs
- External RS-232c and GPIO control
- Optional RCF400 controller

Denon Professional RCF400 Remote Control Unit

- Large, easy-to-read OLED display
- Full navigation and transport control
- Power-On Auto Play
- Twenty hot start buttons

Record and Replay

Solid State Recorder / Players

Denon Professional DNF450R Digital Audio Recorder

- Records/Plays WAV and MP3 files to/from SD/SDHC cards
- Balanced and unbalanced audio input, unbalanced (RCA) output
- Serial Remote (RS232)
- Contact closure remote control (foot pedal remote)
- Connecting to PC via USB
- Power on auto play
- Optional RCF400 controller

Denon Professional DNF650R

- Records and plays back WAV and MP3 files to/from SD/SDHC cards/USB drives
- +20%/–40% Pitch Control with tempo lock
- Power on auto-play
- Front-panel mounted USB for connecting to a computer and keyboard
- Serial (RS-232c) and parallel remote inputs
- Balanced (XLR) and unbalanced (RCA) analogue inputs and outputs
- S/PDIF and AES/EBU digital input and output
- Optional RCF400 controller

Marantz PMD580 – Network Recorder

- 24-bit or 16-bit MP3 and WAV file recording onto compact flash (CF) card
- Ethernet connectivity with internal web-based GUI
- Automatic archiving of recorded files to the network
- Balanced XLR inputs and outputs
- AES/EBU and S/PDIF digital inputs and outputs
- Control: - menu-driven contact closure remote, RS232 control port

Record and Replay

DVD Playback

Denon Professional DNV310 DVD player

- Defeatable on screen icons
- User-definable wallpaper
- NTSC/PAL conversion
- HDMI input
- RS232 control

Tuners

HR78/ HR31 Digital AM/FM Tuner with rack brackets

- 18 presets (12 FM and 6 AM)
- Large LCD digital display
- Auto search up and down
- Output Level control
- RCA and 1/8" (3.5 mm) Outputs

Denon TU1510AE

- Rotary tuning knob
- 2 - Line Display
- 100 preset stations
- Alphanumeric preset names

Denon TU604CI

- Accepts up to six tuner modules
- Separate output per module
- 56 presets per module
- Ethernet/IP remote control

Portable Recorders

Marantz Professional CDR310 Portable CD Recorder

- Records to CD-R (CD-DA, ISO9660)
- MP3, WAV (16-bit), AIFF (16-bit), CD-DA (16-bit) recording formats
- Inputs: - Mic (XLR), line (RCA), digital (RCA, coaxial)
- Outputs: - Line (RCA Jack), digital (RCA, coaxial), headphones (6.35 mm Phone Jack) and speaker

Marantz PMD661 Portable SD Recorder

- Records to SD/SDHC Cards
- MP3, WAV (16/24-bit) recording formats
- USB 2.0 port for easy file transfer
- Built-in stereo playback speakers
- Over 5 hours of field recording with four AA alkaline batteries
- Inputs: - 2 x XLR mic/line switchable with +48V phantom power, SPDIF digital
- Outputs: - 2 x RCA and 1 x USB2.0

Mixers

Strip Mixers

Rolls RM65B 6 Channel Hex Mix Mixer

- 6 x XLR microphone inputs and 6 x 1/4" line input jacks
- Individual phantom power switches for each microphone
- Front panel headphone output
- Monitor, effects send and pan pots on each channel
- Treble and bass tone controls for each channel
- Right and left master volumes and FX return master channel

Rolls RM67 Microphone/Line Mixer

- 3 x microphone XLR inputs with phantom power
- 4 x stereo source inputs
- Tone controls for each mic input, bass and treble controls for the source inputs
- Stereo RCA record output
- Remote volume control jack

Rolls RM68 Zone Wolf 2 Zone Mixer

- 2 zones, 6 assignable RCA inputs
- 3 microphone XLR inputs with phantom power
- Bass and treble control on each zone
- Talk-over (ducking) on Mic 1 to assigned zone
- 1/4" TRS outputs

Rolls MX153 Mix Mate Mixer

- Two microphone inputs with available phantom power
- Treble or bass cut controls for each mic
- Three stereo source inputs with bass and treble on sources 1 and 2
- Signal muting (ducking) on mic 1 and source 3
- Switchable mono or stereo mode on unbalanced outputs
- 12VDC power for mobile applications

Mixer	Mic input	Mic/line Inputs (XLR)	Stereo Source Inputs (RCA)	Assignable inputs	Outputs	Zones	Talk-over by	Phantom Power on Mics
RM65B		6		No	L&R, Monitor, Effects send	1		Yes
RM67		3	4	No	L&R, Stereo Record	1	Mic 1	Yes
RM68		3	3 (6)	Yes	2 x L&R	2	Mic 1	Yes
MX153	2		3	No	L&R or Mono	1	Mic 1 & Source 3	Yes

Mixers

Strip Mixers

Biamp 301 and 601 Mixer

The 301 & 601 are single rack space, three input and six input mic/line mixers. Each input channel uses a differentially balanced, discrete transistor mic/line preamplifier for low noise and low distortion performance. Special features, including limiters and remote level control, make the 301 and 601 extremely versatile. 301 and 601 mixers are dependable, easy to install, simple to operate, and are covered by Biamp Systems' five-year warranty

- Three electronic balanced mic/line input channels (301)
- Six electronic balanced mic/line input channels (601)
- Each input has rotary level control with peak LED indicator, screwdriver trim adjust with 30dB pad switch and +24V phantom power
- VOX auto-muting of one channel for "talk-over" applications
- Remote VCA Master level control with signal present LED
- Main patch insert point for external processing along with main stacking input for signals from other mixers
- Screwdriver-adjust tone controls and limiter on main output

Biamp 801 Mixer

The 801i is a single rack-space mixer, with eight mic/line inputs and one auxiliary line input. It utilises the same balanced mic/line preamplifier as the 301 and 601 mixers. Special features, including a limiter and remote level control, make the 801i extremely versatile. each input has rotary level control with peak LED indicator, screwdriver trim adjust with 30dB pad switch, +24V phantom power and High pass filter switch.

- Aux input switch selectable for balanced or stereo summing
- Aux input 'VOX auto-ducking' switch selectable on channels 1~8
- Unbalanced direct output terminal on each input channel
- Remote VCA Master level control with signal present LED
- Main output includes limiter and Bass and Treble control with rear panel bypass switch
- Channel 1 automatic override assignable on other channels
- Stack in and slave switch for adding inputs by linking units

	Inputs	Outputs	Termination	Control	Dimensions	Weight	Power consumption
301 MIXER	3 x Balanced Mic/ line Stack input from other mixers	1 x Balanced Line	Barrier Strip	Remote VCA	(W x H x D): 483 x 44 x 178mm	2.72Kg	<15 Watts
601 MIXER	6 x Balanced Mic/ line Stack input from other mixers	1 x Balanced Line	Barrier Strip	Remote VCA	(W x H x D): 483 x 44 x 178mm	2.72Kg	<15 Watts
801 MIXER	8 x Balanced Mic/ line 1 x Aux input + Stack input	1 x Balanced Line unbalanced direct out per input	Barrier Strip	Remote VCA	(W x H x D): 483 x 44 x 178mm	2.72Kg	<15 Watts

Mixers

Strip Mixers

TOA M633D

Pristine digital audio quality with 24bit - 48kHz A/D & D/A

Inputs:

- 6 mono mic/line (Phoenix) and 3 stereo unbalanced line (RCA)

Outputs:

- 2 balanced mono and 1 stereo (phoenix) plus 1 recording (RCA)

Easy operation:

- Analogue user interface, no PC setting is required.

No more feedback:

- Intelligent feedback suppressor (FBS) built in.
- Feedback suppressor automatically searches out and reduces sensitive frequencies that contribute to acoustic feedback.
- 7 automatic filters per channel
- Can be activated independently for each MIC Input

Automatic Resonance Control (ARC) function built in.

- ARC processor compensates for acoustic resonances which can reduce intelligibility.
- May be set to work for all main outputs independently (12 filters per output)
- Simple 1-Button activation!
- Automatic Clip-Guard, prevents input clipping distortion.
- Auto-muting of line input sources via priority mic inputs.
- Output zone assignments easily accessed from front panel.
- Supplied security cover prevents unauthorized access to front panel controls.

Portable

Rolls MX54s Pro Mix Plus

- Mixes three microphones to stereo XLR outputs
- Output level controls for mic or line-level output
- Transformer isolated outputs
- Phantom power and low-cut switches for each mic input
- Battery or AC powered

Mixers

Console Mixers

Peavey PV Series Mixers

The PV® Series compact mixers offer durable construction and excellent sound quality at an unbelievably low price. The PV Series has long been the benchmark of performance and value in audio, and the new PV mixers reinforce this legacy. With the same reference-quality microphone preamps used in Peavey RQ™ Series mixers and an astonishingly low THD (Total Harmonic Distortion) of 0.0007%, these new mixers are equally useful in project studios or live/program music mixing situations.

USB Port
Turn your PV mixer into a computer sound card! This USB port allows two-way transfer between your mixer and computer (all models can be ordered with USB Interface).

Peavey FX Series Mixers

Peavey's FX Series mixing consoles revolutionise mid-size mixers. The FX Series mixers are available in 14, 24 and 32 channel versions featuring exclusive Silencer™ mic preamps, dual DSP engines, dual USB ports and built-in MP3 compression for streaming audio directly to your computer.

Record and Playback Ports – play or record to computer via USB
Imagine the possibilities: stream a live performance or rehearsal in MP3 format directly from dual USb ports to a hard-disc recorder. Save your songs and ideas on a memory stick and unveil them at a rehearsal. Create instant recordings of your live performances. Record your home studio creations directly to MP3 format all in the same console!

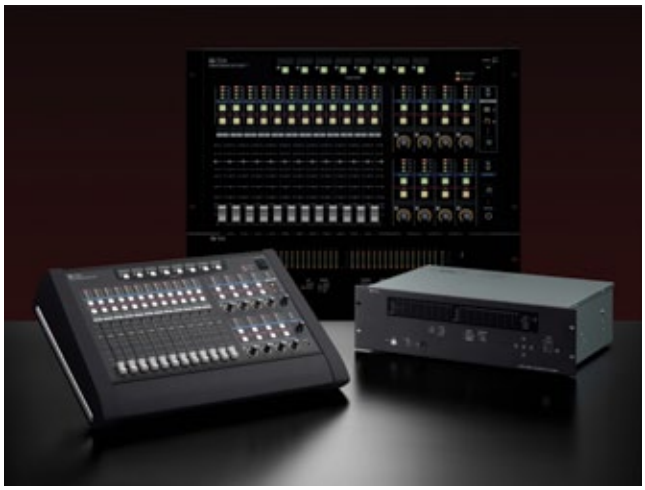
16 FX

24 FX

32 FX

Mixers

Console Mixers



TOA D2000 Series Digital Mixing System

The TOA D-2000 Series Digital Mixer is designed to provide highly flexible mixing for small to medium-sized applications. Up to four Digital Mixing Processor Units and Remote Control Units can be connected to suit the actual size of the venue. The D2000 accepts the D901 series modules and control options. See page XXX

Features

- Expandable to 128 inputs/outputs with 32 memory positions
- Extensive DSP functionality
- CobraNet interface enables the creation of decentralised systems
- Can be controlled over a Local Area Network (LAN) via PC or dedicated console
- Can be controlled by D901 fader unit and/or VCA and contact modules

Ideal solution for

- Houses of worship
- Function rooms
- Convention centres
- Gymnasiums
- Boardrooms
- School halls

TOA D2012C Console unit

- Communicates with D2008SP over existing Local Area Network
- Features 12 motorised faders, 8 motorised rotary controls and 8 programmable function buttons
- Up to four layers per console
- Monitor bus
- Local RCA line input and headphone socket
- Rack-mountable or use optional desktop kit

TOA D2008SP Mixing Processor

- Up 32 inputs/outputs configuration via installed modules
- Feedback suppression
- Ducking
- NOM and gating
- Audio processing
- Delay
- Filter (high pass, low pass, notch)
- Parametric EQ
- Crossover
- Cross point gain
- 32 memory positions
- 24 bus matrix

TOA D2000AD1

- Mic/Line Input Module
- Dedicated 4-channel Mic/Line input module.
- XLR-M Connector
- Select input Sensitivity (1W/1M) and activate phantom power with PC control software

TOA D2000DA1

- Output Module
- 4 balanced line outputs
- XLR-F Connectors

TOA D2000CB

- CobraNet Interface Module
- CobraNet interface module for the D-2008 Digital Mixing Processor unit
- 16-channel inputs

Signal Processing

Equalizers

Peavey PV215EQ

- 1 RU
- dual channel (15 bands per channel)
- 12dB boost/cut per band
- 80 Hz 24 dB low cut filter
- XLR balanced inputs and outputs
- bypass switch with status LED
- centre-detent control sliders
- five year warranty

Peavey PV231EQ

- 2RU
- dual channel (31 bands per channel)
- switchable 6dB or 12dB boost/cut per band
- variable low cut and high cut filters per band
- output level LEDs per band
- XLR balanced inputs and outputs
- five year warranty

Crossovers

Peavey PV23XO/PV35XO

- 2-way stereo / 3-way mono (PV23XO) or 3-way stereo / 5-way mono (PV35XO) operation
- variable state filter controls
- 24dB/ocyave filters
- mute capabilities for each output channel
- balanced XLR inputs and outputs
- five year warranty

Compressors

Peavey CEL2A

- compressor/expander/limiter
- stereo or dual mono operation
- switchable low cut filter on each channel
- switchable de-esser on each channel
- 6.35mm TRS insert capability
- fully adjustable compressor/limiter/expander
- full gain reduction metering
- input/output switchable meters
- five year warranty

Rolls CL151 GLC Gate Compressor/Limiter/Gate

- XLR mic and 1/4" line inputs
- +12 VDC phantom power
- Smooth, soft-knee compression
- Noise gate
- Side chain for detector circuit access

Signal Processing

Speaker processors

Peavey VSX26

- 2 input/6 output loudspeaker DSP management system
- 48 kHz sample rate, 24-bit 256x over-sampled Delta-Sigma AD, DA
- USB A port for load/save of storage parameters from USB key
- XLR inputs and outputs, AES-EBU digital input
- +24dBu inputs and outputs
- uilt-in signal generator (white, pink, sine)
- fully adjustable crossover points
- easy-to-read LCD screen
- features per input:
- 27-band Graphic EQ
- Autograph®algorithm for automatic EQ settings
- compressor/limiter
- delay (340 ms)
- features per output:
- drossover/bandpass filter (Butterworth, Bessel, Linkwitz-Riley)
- parametric EQ (5-band, HP, LP Notch, Horn EQ, All-Pass),
- compressor/limiter,
- delay with polarity inversion
- 5 year warranty

Tannoy TDX1 DIGITAL SYSTEM CONTROLLER

Versatile, powerful and feature packed digital system controller, with crossover, EQ, delay and limiting functions and pre-programmed optimisation of the performance of Tannoy loudspeaker systems.

- Two input, 4 output on balanced XLR plus a digital input at 44.1 or 48kHz
- Signals present on inputs A & B can be routed to any of the four output channels
- Variable high and low pass filters for each output can be set with a choice of classic filters
- Four band parametric EQ on each input and output for speaker management
- Independent delay on all outputs (up to 200ms per channel)
- Four high performance limiters
- Presets pre-loaded with all common combinations of Tannoy products plus 100 'user presets'

Tannoy SC1VNET DIGITAL SYSTEM CONTROLLER

Tannoy's powerful 2-in 6-out digital system controller, the VNET SC1 combines the functions of multiple conventional processing products into 1RU of rack space. Using DSP-based digital crossovers with 96kHz sampling rates this versatile, feature packed unit will enable simple configuration and optimisation of loudspeakers for superior audio quality.

- Two balanced XLR analogue inputs and six balanced XLR analogue outputs
- Simple configuration and optimisation of loudspeakers in terms of speaker management and room EQ functionality
- Intuitive signal flow based interface and 2 x 24 character backlit LCD
- Unique routing engine allows any input to be sent to any output
- Butterworth, Bessel, Linkwitz Riley and Hardman type filters are available on all outputs
- Input and output gain is adjustable in 0.2dB steps from - 40dB to +15dB
- Input delay adjustable in variable steps from 0 to 400ms, while output delay is adjustable to 80ms
- RS232 connector enables connection to a PC for enhanced control functions using VNET™ software

Signal Processing

Ducker

Rolls DU30B Mic Preamp Audio Ducker

- Ducks signal on RCA line input under signal on the mic or aux input
- Mic preamp with level control
- +12 VDC phantom power
- Variable sensitivity, duck depth, and duck release time

Stereo Converter

Rolls MB15B ProMatch Stereo Converter

- Stereo direct box
- Stereo RCA to stereo XLR
- Stereo 3.5mm headphone level to line level
- Stereo level control for each channel
- Works as stereo balanced line level control

Ambient Noise Compensation

TOA DPL2

- Digital ambient noise control (ANC) function automatically adjusts output gain to match changes in ambient noise levels
- Exclusive TOA algorithm distinguishes unit output sound level from ambient noise levels, for more accurate control
- Monitor output for sound picked up by the ambient noise sensor microphone
- Automatic level control feature keeps input signal at a constant level
- Maximum Output function acts as a limiter
- Sensor microphone input with phantom power
- Built-in key lock function prevents unauthorized adjustment
- Standard 1RU-size with rack-mount hardware included

DSP Systems

TOA D901

The D-901 DIGITAL MIXER is the ideal solution for a wide variety of installed sound applications including audio/visual, houses of worship and many others. The D-901's modular design supports up to twelve mic/line inputs and eight line outputs with flexible RS-232 or contact-closure remote control. Audio processing tools include auto-mixing, feedback suppression, multi-band parametric filters, compressors, limiters, noise gates, crossovers, delays and more. Full input-to-output matrixing allows users to store and recall any input to output combination for multi-zone or room-combining applications. The unit can be programmed via the front panel display or configured off-site with PC control software for later uploading.

Input Modules	
D921F	2 channel microphone/ line input module with XLRs
D921E	2 channel microphone/ line input module with terminal block connectors
D922F	2 channel microphone/ line input module, XLRs & DIP selection of features
D922E	2 channel microphone/ line input module, terminal block connectors
D923AE	2 Channel Digital Input Module
D937SP	Single Channel Stereo Digital Input Module
D936R	4 channel Stereo Input Module

Control Modules	
D981	Remote Control Module - Terminal Block Type
D983	Remote Control Module - RJ45
D984VC	VCA Control Module
Accessories	
D911	VCA Fader Unit 12 x 8 Requires D984VC

Output Modules	
D961SP	2 Channel Stereo Digital Output Module
D972AE	4 Channel Output Module
D971M	4 channel line output module with XLRs
D971E	4 channel line output module with terminal block connectors
D971R	4 channel line output module

DSP Systems

TOA M9000M2

The TOA M9000M2 Digital Matrix Mixer combines a modular matrix mixer and digital signal processor (DSP) in a compact 2RU package. This versatile modular unit is ideal for multi-zone paging, music distribution and room-combining applications. Setup is achieved via the GUI software which enables easily configured, custom systems with up to eight mic/line inputs and eight outputs. The M9000M2 has two inbuilt output channels (expandable to eight using the T001T module) with built-in DSP, including ten-band parametric EQ, compressor, delay, and more. Input and output modules include additional DSP. A new integrated operating mode provides powerful functionality for both simple mixing and complex multi-zone paging applications. Features include telephone zone paging, automatic microphone mixing and ambient noise control. Up 16 control panels can be used via the RS485 interface on the RC001T module. An RS232 interface is also included

- **Modular Digital Matrix Mixer** for a multitude of applications including audio-visual, zone paging, room combining and more
- **Up to 8 mic/line inputs and 8 outputs**
- **Easy to configure and operate**
- **32 Scenes** - Up to 32 presets containing all mixer (non priority) settings
- **32 Paging Presets** - Up to 32 paging events can be programmed separate from scene presets
- **Cross-Point** – Cross-points can assigned to control panel buttons (ZM9011, ZM9013, ZM9014) independent of preset scenes
- **Exceptional audio quality**
  - 24-bit, 48 kHz sampling
  - Ultra-Low Distortion – 0.0008%
- **Dual Channel Digital Signal Processor (DSP):**
  - 10-Band Parametric EQ
  - High and low pass filters
  - Compressor
  - Loudness contour
  - Bass and treble
  - Delay (MIXER mode)
  - TOA speaker EQ presets
  - Additional DSP included on D-001T and T-001T modules
- **Telephone Zone Paging** — access up to eight zones with optional ZP-001T module
- **Automatic Mic Mixing** — automatically adjusts output level based on the total number of open microphones (NOM)
- **Ambient Noise Control** — automatically increases or reduces output levels in response to changes in ambient noise
- **Programmable** with Software via RS232 or via the Multi-function Display allows programming and operation without a PC
- **Multi-function Display** allows programming and operation without a PC

Accessories

TOA M9000 MODULES and CONTROL PANELS

The TOA M9000 chassis can accommodate a total of eight modules selected from the following

TOA M9000 Input/Output Modules	
D001T	Dual Mic/Line Input Module
D001R	Dual Line Input Module with RCA Connectors
T001T	Dual Line Output Module
RC001T	Remote control module for ZM9011/ZM9012/ZM9013/ ZM9014 control panels
ZP001T	Telephone Zone Paging Module
C001T	I/O Control Module
AN001T	Ambient Noise Control Module

TOA M9000 Control Panels VCA Control Panels - (up to two can be used in one frame)	
ZM9001	Remote panel six button, VCA control
ZM9002	Remote panel four button and level control VCA control
ZM9003	Remote panel, contact closure & VCA control
RS485 Control Panels (up to 16 can be used on the one frame)	
ZM9011	Remote panel, four assignable buttons, RC001T required
ZM9012	Remote panel, level control, RC001T required
ZM9013	Remote panel eight assignable buttons, RC001T required
ZM9014	Remote panel, four assignable buttons and level control, RC001T required
Accessories	
AN9001	Ambient Noise Sensing Mic

Networked Media Systems

Tesira

Tesira changes the scale of possibilities for the way AV systems are designed, installed, networked and experienced. And by changing the scale of what's imaginable, Tesira gives you the power to succeed like never before.

Tesira, the first truly scalable media system for digital audio networking using Audio Video Bridging (AVB), delivers smarter system modularity and breakthrough performance.

Tesira has boundless expansion potential, with:

- Modular scalable I/Os, DSPs and networked end-points
- A scalable digital media backbone (AVB)
- Up to 8 DSP cards in a single chassis
- Up to 420 x 420 digital audio channels

Audio Video Bridging (AVB) — The Next Generation In Digital Media Transport

Now you can future-proof your projects and your business. With the first open, industry-accepted standards for transporting audio and video over the network, AVB bridges the gap between AV and IT technologies.
The new AVB standards synchronise multiple streams of audio and video, eliminate buffering delays and create resource reservation. And because AVB standards leverage existing Ethernet technology, they will benefit from ever increasing speeds and enhancements backed by major consumer electronics companies, allowing the AV industry to benefit from solutions aimed at the mass market.
For AV integrators and IT Managers, AVB means end-to-end digital networks that are simple to design and easy to manage. And ultimately, systems that are more profitable for you and more cost-effective for your customers.

AVB advantages include:

- IEEE standards
- Significantly lower latencies
- Larger channel capacity
- Intelligent switches
- Ethernet-based
- Single network for all media, including non-AVB traffic

Intelligibility On A Whole New Scale

The Tesira system features Biamp's new SpeechSense™ Technology and AmbientSense™ Technology, each designed to enhance speech processing by more accurately distinguishing between human speech and ambient noise. This allows Biamp's exceptional algorithms—including acoustic echo cancellation (AEC), automatic gain control (AGC), ambient noise compensation (ANC), and automatic mixers—to perform on a whole new level.

System Design On A Whole New Scale

What if… you could design and expand systems incrementally, floor by floor, phase by phase? Then specify the correct hardware just by pushing a button? You asked, Biamp answered. Introducing Tesira software, including Biamp's compilation engine and partitions. These breakthrough software tools will simplify system design and specification, save time and reduce costs.

Biamp's Unrivalled Compilation Engine

Designing sophisticated audio systems is easier, faster and more efficient using our compilation engine. You can minimise design time, and potentially lower both hardware costs and the costs associated with trial and error.
Simply design the system and click on "compile." The compilation engine performs a number of operations in a matter of seconds—from checking that the design is complete, to determining the most cost-effective list of Biamp hardware required, to finally documenting the necessary system interconnects to ensure proper, stable operation.

Partitions For Incremental Configuration

Tesira's intuitive design software allows you to configure systems using a phased or "partitioned" approach. Whether you're expanding an existing installation, adding AV to new buildings on an existing campus, or working on a large or complex project, Tesira partitions will make your job easier. When using partitions, distinct areas can be configured, updated or maintained separately without having to reconfigure the entire system, while other areas remain up and running. Not only do Tesira partitions provide the opportunity for incremental configuration, working in partitions also minimizes redrawing and compilation time.

Success On A Whole New Scale

For AV and IT system integrators and consultants, Tesira means the opportunity to grow your business by entering new markets and taking on larger-scale projects. And the potential for easier expansion is ideal for projects that are phased or grow over time, such as hospitals, universities and corporate campuses. When you specify and install Tesira systems, you get the highest-quality audio and a future proofed system that's more networkable, expandable, reliable and cost-efficient. All backed by Biamp's legendary customer support and the only 5-year warranty in the industry. That means future-proofing for your business, too.

Networked Media Systems

Tesira Servers

Server I/O

The Tesira SERVER-IO is a digital network server. It is factory configured with one DSP-2 card and is capable of handling up to two additional DSP-2 cards. The SERVER-IO can be configured with one 420 x 420 channel AVB card or one AVB card and one or two 32 x 32 channel SCM CobraNet cards. The SERVER-IO can support up to 12 Standard Tesira I/O cards for up to 48 channels of audio I/O (e.g. mic and line level, VoIP, and telephone interface). The SERVERI/O is the core of a Tesira digital audio system and can be used as a standalone core or with Tesira Expanders to form a highly scalable audio network.

- Supports up to 3 DSP-2 cards
- Up to 12 I/O cards with maximum 48 channels of audio
- 420 x 420 channels of digital I/O with with support for network redundancy
- Configuration and control networking over Ethernet
- Front panel LCD display for device and system information
- Rack mountable (3RU)

Server

The Tesira SERVER is a digital network server. It is factory configured with one DSP-2 card but can accept up to a total of eight DSP-2 cards. The SERVER can be outfitted with up to two network cards for AVB or CobraNet® in any combination. The SERVER can also be outfitted with a standard I/O card for 4 channels of local I/O. The SERVER is the core of a Tesira digital audio system and can be used as a standalone or with Tesira Expanders to form a highly scalable audio network.

- Supports up to 8 DSP-2 cards
- 420 x 420 channels of I/O per AVB-1 card with support for network redundancy
- Configuration and control networking over Ethernet
- Front panel LCD display for device and system information
- Supports additional AVB module and/or optional Cobranet module
- Rack Mountable (3RU)

SERVER I/O Cards

AVB-1

- AVB network card capable of up to 420x420 channels
- For use in all Tesira Servers

SCM-1

- Cobranet network card capable of up to 32x32 channels
- For use in all Tesira Servers

DSP-2

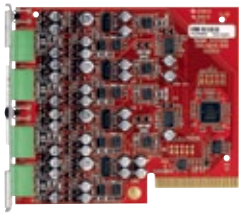
- DSP card to suit Tesira Servers
- 2 DSP processors onboard for unprecedented processing power

Networked Media Systems

Tesira Servers

Server I/O Cards

SIC4 – Mic/Line Input Card



- 4 channels of balanced mic or line level input on plug-in barrier strip connectors
- Clip indicator and +48V Phantom Power
- Low latency converters

SOC4 – Line Output Card

- 4 channels of balanced line level output on Plug-in barrier strip connectors
- Low latency converters
- Selectable full-scale output reference level (24dBu, 18dBu, 12dBu, 6dBu, 0dBu, -31dBu) for best interface/performance

SEC4 – Acoustic Echo Cancellation Card

- 4 channels of balanced mic or line level input
- 4 channels of Acoustic Echo Cancellation using Biamp's proprietary wide-band Sona™ algorithm
- New processing algorithms: SpeechSense plus Automatic Gain Control (AGC) and High pass filter
- Does not use processing resources from SERVER or SERVER-IO DSP.
- Allows for AEC processing to be used by any other system input

SAC4 – Ambient Noise Compensation Card

- 4 channels of balanced mic or line level input
- 4 channels of Ambient Noise Compensation using Biamp's proprietary AmbientSense™ algorithm
- Does not use processing resources from SERVER or SERVER-IO DSP.
- Allows for AEC processing to be used by any other system input

SVC2 – VoIP Card

- Control via Tesira software or third-party control
- Two concurrent, independent calls
- Caller ID, Hold capability, Redial, 16-entry Speed Dial and Adjustable auto-answer, Voice activity detection and Comfort noise generation
- SIP authentication and SIP v2 (RFC 3261 and companion RFCs)
- Multiple CODEC support: (G.711μ, G.711A, G.722, G.729AB, G.723.1)

STC2 – Telephone Interface Card

- Initiate outgoing calls: DTMF tone dialing, Speed-dialing, Redial, & Flash
- Detect and answer incoming calls
- Line echo cancellation and Noise suppression filter
- TouchTone™ decoding and Caller ID reception
- Call progress and Line intrusion detection along with Continuous Line Status and Fault Monitoring

Networked Media Systems

Tesira Expanders

EX-IN – 4 Mic/line input AVB expander

The Tesira EX-IN is a half-rack expander box for use with Tesira SERVER and SERVER-IO devices. The EX-IN is a 4 channel mic/line input expander. The expander communicates with the Tesira AVB network for audio networking, configuration and control and is powered by PoE+.

- Tesira Half-rack input expander box with 4 channels of balanced mic or line level input on plug-in barrier strip connectors
- +48V Phantom Power
- Audio and control networking over AVB
- Powered by PoE+

EX-OUT

The Tesira EX-OUT is a half-rack expander box for use with Tesira SERVER and SERVER-IO devices. The EX-OUT is a 4-channel line level output expander. The expander communicates with the Tesira AVB network for audio networking, configuration and control and is powered by PoE+.

- Tesira Half-rack output expander box with 4 channels of balanced mic line level output on plug-in barrier strip connectors
- Audio and control networking over AVB
- Powered by PoE+

EX-IO

The Tesira EX-IO is a half-rack expander box for use with Tesira SERVER and SERVER-IO devices. The EX-IO is a 4-channel input and output expander. The expander features two channels of mic/line level input and 2 channels of mic level output. The expander communicates with the Tesira AVB network for audio networking, configuration and control and is powered by PoE+.

- Tesira Half-rack input/output expander box with 2 channels of balanced mic or line level input and 2 channels of balanced line level output
- +48V Phantom Power on inputs
- Audio and control networking over AVB
- Powered by PoE+

EX-LOGIC

The Tesira EX-LOGIC is a half-rack logic box for use with Tesira SERVER and SERVER-IO devices. The EX-LOGIC provides both logic inputs and outputs and through software can be configured as a control interface. There are 16 total connections that can be used as inputs or outputs. 4 of these connections can also be used as variable voltage control inputs (e.g. interface to a potentiometer). The EX-LOGIC also provides a serial port for the output of command strings that can be used to control other equipment in the system.

- 16 total logic I/O connections. 4 connections can also be used as voltage control inputs
- Inputs can control actions within the software including: presets, mutes, ducking, room combining, paging functions, and much more
- Outputs can trigger status relays, indicators or provide logic input to other controllable equipment
- Serial port for the output of command strings
- Connects to Tesira SERVER or SERVER-IO over AVB
- Powered by PoE
- Half-rack chassis

Networked Media Systems

Tesira Expanders

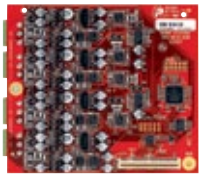
EX-MOD

The Tesira EX-MOD is a modular expander device that is designed for use with Tesira SERVER and SEVER-IO devices. It can be configured with up to three 4-channel input and/or output cards for a maximum of 12 channels. The EX-MOD expander communicates with the Tesira AVB network for audio networking, configuration and control.

- Tesira Modular I/O expander device that can accommodate up to 3 I/O cards, providing up to 12 channels of analog audio
- AVB connection to Tesira system for audio networking, configuration and control
- Plug-in barrier strip connections on cards
- Internal universal power supply
- Rack mountable (1RU)

EX-MOD Expander Cards

EIC4 – 4 channel Mic/Line input card



- 4 channels of balanced mic or line level input on plug-in barrier strip connectors
- Clip indicator and +48V Phantom Power per input

EOC4 – 4 Channel Line output card

- 4 channels of balanced line level output on plug-in barrier strip connectors
- Selectable full-scale output reference level (24dBu, 18dBu, 12dBu, 6dBu, 0dBu, -31dBu) for best interface/performance

EIOC4 – 2 Channel Mic/line input and 2 channel Line output card

- 2 channels of balanced mic or line level inputs with +48V Phantom Power on each input
- 2 channels of balanced line level output
- Plug-in barrier strip connectors

Tesira Ethernet Controls

Tesira surface-mounted and in-wall remote Ethernet control devices offer a simple, intuitive interface and can be installed and configured to fit the needs of a particular application.

The devices connect via standard CAT-5/6/7 cabling and are powered over Ethernet (PoE), eliminating the need for custom cabling and local power sources. Multiple remote control panels can be connected over large distances using standard network technology.

Available in 2 versions:
TEC1s – Surface Mount Control
TEC1i – In-wall Control

- Adjustment and/or initiation of 32 selectable system volumes and actions
- Control functions are programmed in the Tesira system design software
- High contrast OLED display with capacitive touch technology eliminates protruding and moving parts to increase reliability and longevity

Networked Media Systems

Nexia Processors

The entire Nexia® digital sound processor lineup is designed with a network-friendly open architecture to help you create economical, intuitive solutions. You'll save time, effort and ultimately money. The internal system design is completely user definable via PC software, and can be controlled via dedicated software screens (Davinci), RS-232 or Ethernet based control systems, and/or a variety of optional remote control devices. Multi-unit Nexia systems can be created utilizing Ethernet and NexLink® digital audio linking.
Reliability is guaranteed by Biamp's 5 Year Warranty.

	Inputs	Outputs	Connectivity	Control	Dimensions	Weight	Power consumption
NEXIA SP Speaker Processor	4 x Line	8 x Line	Ethernet, RS-232	RC-Bus	(W x H x D): 483 x 45 x 283mm	3.9Kg	65 Watts
NEXIA PM Presentation Mixer	4 x Mic/Line 6 Stereo Line (RCA)	3 Stereo Line (6 Mono)	Ethernet, RS-232	RC-Bus	(W x H x D): 483 x 45 x 283mm	3.9Kg	65 Watts
NEXIA CS Conference System	10 x Mic/Line	6 Mic/Line	Ethernet, RS-232	RC-Bus	(W x H x D): 483 x 45 x 283mm	3.9Kg	65 Watts
NEXIA VC Video Conference	8 x AEC 2 x Mic/Line & 1 Codec	4 x Mic/Line	Ethernet, RS-232	RC-Bus	(W x H x D): 483 x 45 x 283mm	3.9Kg	65 Watts
NEXIA TC Teleconference	8 x AEC 2x Mic/Line + Hybrid I/O	4 x Mic/Line	Ethernet, RS-232	RC-Bus	(W x H x D): 483 x 45 x 283mm	3.9Kg	65 Watts

Networked Media Systems

Audia Processors

Biamp's revolutionary Audia® Digital Audio Platform seamlessly integrates powerful hardware and intelligent software for unheard of design and networking potential. In fact, Biamp is one of the first manufacturers to make use of CobraNet® by integrating it into our Audia DSPs, pioneering its use in high profile installations. A single Audia unit can provide the power of an entire rack of processors at your fingertips. Imagine what you can do with multiple Audia units, configured and networked to conquer the most challenging environments.
5 Year Warranty

AudiaSolo processors

For systems where no digital audio networking is required, AudiaSOLO is a, streamlined solution. It has all of Audia's processing power and a range of I/O options (8x8, 4x12, & 12x4). Only now we've engineered it into a single rack space unit with a new, low profile power supply. The full Audia library of Algorithms is available. Supports daVinci software and all RCB remote devices. 5 Year Warranty

- Cost-effective single rack-space package
- Third-party control via RS-232
- Built-in diagnostic tools
- Remote function control via Ethernet
- Multi-level security coding
- Extensive processing library available
- Compatible with daVinci, Biamp's control surface design package.

	Inputs	Outputs	Connectivity	Control	Dimensions	Weight	Power consumption
AUDIA8x8 SOLO	8 x Balanced Mic/Line	8 x Balanced Mic/Line	Ethernet, RS-232	RC-Bus	(W x H x D): 483 x 45 x 283mm	3.9Kg	110 Watts
AUDIA12x4 SOLO	12 x Balanced Mic/Line	4 x Balanced Mic/Line	Ethernet, RS-232	RC-Bus	(W x H x D): 483 x 45 x 283mm	3.9Kg	110 Watts
AUDIA4x12 SOLO	4 x Balanced Mic/Line	12 x Balanced Mic/Line	Ethernet, RS-232	RC-Bus	(W x H x D): 483 x 45 x 283mm	3.9Kg	110 Watts

AudiaFlex

AudiaFLEX gives you unprecedented control of your system with the ultimate flexibility in design. Choose any configuration of input and output pairs to create the system you need without compromises. Multi-Channel audio can be seamlessly distributed among multiple units via CobraNet®, using economical Cat-5 cable. Control the processing power of the entire network over Ethernet, or via Crestron®, AMX®, or other popular controllers. Each AudiaFLEX can provide up to 24 channels of I/O, or expand your options even further with the EXP and MiniEXP range of CobraNet expansion units.

Couple with this Audia's unprecedented software and processing library and you have a tool that is capable of even the most demanding of system designs.

- Up to 24 inputs/outputs, any combination by pairs, with or without CobraNet
- Control via:
  - PC/laptop
  - Remote control panels for level, presets, etc.
  - Third-party control via RS-232
  - Built-in diagnostic tools
  - Remote function control via Ethernet

	Inputs/outputs	Expansion/Audio Distribution	Connectivity	Control	Dimensions	Weight	Power consumption
AUDIAFLEXNC	12 x card slots Provide up to 24 channels of I/O	-	Ethernet, RS-232	RC-Bus	(W x H x D): 483 x 89 x 283mm	6.2Kg	<110 Watts
AUDIAFLEX	12 x Balanced Mic/Line	Cobranet Enabled (with redundancy) up to 64 channels over ethernet network	Ethernet, RS-232	RC-Bus	(W x H x D): 483 x 89 x 283mm	6.2Kg	110 Watts

Networked Media Systems

AudiaFLEX input/output card options

AEC-2HD

Dual-Channel Wideband Acoustic Echo Cancellation Input Cards
- Two mic/line level input channels with dedicated wideband processing on each input
- Includes Biamp's proprietary SONA™ Adaptive AEC Algorithm delivering true 20Hz to 20kHz wideband Echo Cancellation
- On-board DSP, does not consume AudiaFLEX resources

IP-2

Dual-Channel Mic/Line Input Cards
- Each card provides two mic/line input channels
- Balanced inputs on plug-in barrier strip connectors

OP-2e

Dual-Channel Mic/Line Output Cards
- Each card provides two mic/line output channels
- Balanced outs on plug-in barrier strip connectors

PA-2

Dual-Channel Power Amplifier Cards
- Directly powers 4, 6, or 8 ohm speakers
- Software configurable from 5 to 30 watts dual-channel and from 10 to 60 watts mono-bridged (limited to 120W load per Audiaflex chassis)

TI -2

Dual-Channel Telephone Interface Cards
- Initiate outgoing calls including: DTMF tone dialing, speed-dialing, redial, flash
- Detect and answer incoming calls
- Line-echo cancellation and continuous line-status and fault monitoring

VoIP-2

Dual-Channel Voice Over Internet Protocol Cards
- Two channels of VoIP interface per card
- Caller ID, SIP Protocol, auto-answer, speed dial, hold capability, and direct dialing on each line
- Up to six VoIP -2 Cards can be installed into a single AudiaFLEX unit

Networked Media Systems

AudiaFUSION

AudiaFUSION is a product so innovative we had to create a completely new category to describe it: Networked Amplified Processor. A full-featured DSP with enough power to drive a system of its own, AudiaFUSION is a leap forward in audio technology. It allows you to configure systems that are decentralized, placing components close to speakers for reduced labor and material costs. And when you install AudiaFUSION in a system together with AudiaFLEX, processing resources are shared, making the entire system more efficient. The potential to save money and maximize profit is, well, revolutionary.

FEATURES

- Modular based design
- Amplification modules have software configurable power levels/load options
  - 8 amplification modules per frame with 100 to 600 Watts per module (maximum of 2400W per chassis)
  - 70V or 100V with direct drive capability, or low-impedance (4 or 8Ω) operation
  - Maximum of 2400 Watts of power in 3 rack spaces
- TCP/IP Network controllable
- Comprehensive front panel LED Indication covering Signal presence, Peak and Clip indication, heat sink temperature fault, amplifier failure and fan stuck-rotor
- Internal amplifier module failover mode and entire device failover mode
- Extensive software monitoring features covering peak and excessive clip, heatsink temperature, short circuit, impedance monitoring, amplifier failure and fan stuck rotor
- CobraNet Interface (16 channels in/16 channels out) with dual ports for network redundancy

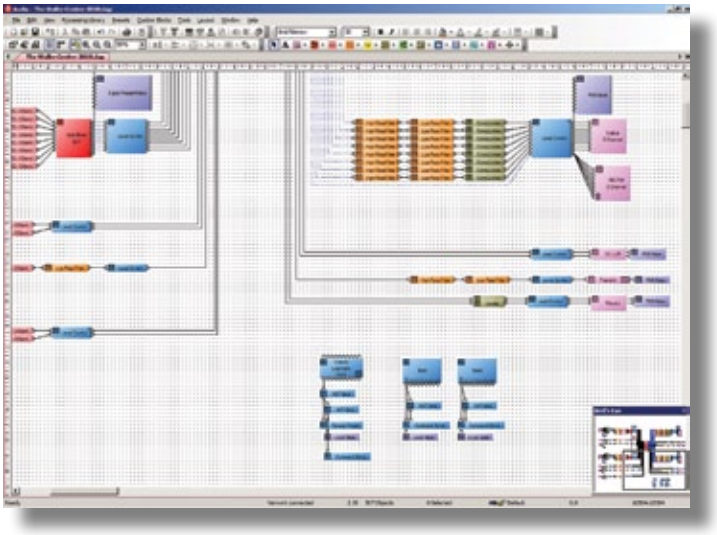
AM-600 Amplifier Module Card

The AM-600 card offers software configurable power levels and load options with scalable output power from 100 to 600 Watts per module (maximum of 2400 Watts per chassis) . The module provides 70V or 100V with direct drive capability, or low-impedance (4 or 8 ohm) operation.

Networked Media Systems

Biamp Systems Control software

The core power of Biamp Systems' products lies in its software. Be it the intuitive design interfaces, the extensive processing library, the logic engine or the incredible power of Biamp's adaptive algorithms. Whichever platform you choose for your next project rest assured that Biamp's software packages will unlock your systems full potential.



Features include:

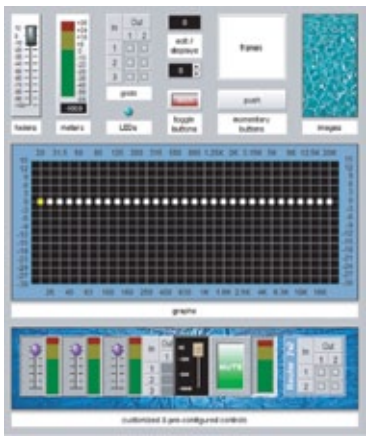
- Easy to use drag and drop open architecture system design
- Fully customisable Processing Library bar stores default/custom DSP objects
- Easy-to-use tools for object alignment, sizing, packing, spacing & centring
- Programmable presets and extensive logic control capabilities

Software: Biamp Systems Audia

Audia® software is designed for the quick and easy configuration of even the most complex installations. Its intuitive, user-friendly interface has a host of features that allow you to take a real bite out of your programming time. Open the software and enter system parameters. Then hit the "compile button" and the Audia software provides a list of all the hardware that you need for the entire system. Configuring your signal chain is as easy as dragging and dropping each component's icon. Powerful signal processing, routing matrices, and room combining are just a few clicks away from completion.

Software: Biamp Systems Nexia

The entire Nexia® product line includes an intuitive drag-and-drop software package that allows for simple configuration with maximum flexibility. You'll have a complete view of your design, which makes it easy to adapt, revise, and rework as you fine-tune the system design. To simplify things even further, Nexia units come with pre-loaded sample NEX files that will get you started right out of the box.



Software: Biamp Systems daVinci

Biamp Systems daVinci's graphic control screen software makes creating an end user interface brilliantly simple. It's part of the genius built into our Audia and Nexia audio design files. Simply paste Audia or Nexia audio components into daVinci to create complete room layouts — including master controls, stations, or individual zone controls.
The function and appearance of the graphic control interface can be tailored to the exact needs of the user and daVinci lets you group or ungroup the control blocks at a level of granularity you have to see to believe.

iPad Dialer App

Introducing the new iPad/iPhone dialer application. The iOS app allows for a new point of control for conferencing applications, further expanding the capabilities of Audia and Nexia systems. Compatible with all Audiaflex (with TI2 and or VoIP2 cards installed) and NexiaTC products, the app provides the following features :

- Use an iPad or iPhone to manage your conference calls
- Multi-room capable with different controls for each space (Up to 8 rooms).
- Connect using your contact list in the Biamp device or the list within the iOS device
- Allows control of room and call level and recall of up to 8 presets per room

Networked Media Systems

CobraNet Expansion Units

A convenient and cost-effective way to expand the power of an Audia system. Using Audia's highly evolved CobraNet® features, now you can create systems you never even dreamed were possible.
The range of Mini-Expanders stretch dollars and Audia systems even further by adding inputs or outputs exactly where they're needed. The option to use Power over Ethernet (PoE) or local power makes them even more versatile. By making CobraNet® access more affordable, Mini-Expanders for Audia expand system boundaries for more scalable, flexible systems anywhere. All units feature selectable 48V Phantom power on all inputs and 24Bit 48Khz sampling.

EXPI-4

EXPI/O-2

EXPO-4

AudiaEXPI

AudiaEXPO

	Inputs	Outputs	Termination	Connectivity	Dimensions	Weight	Power consumption
AUDIAEXPI	8 x Mic/Line level with 48V Phantom Power	-	Plug-in Barrier Strip	Cobranet Ethernet	(W x H x D): 483 x 45 x 146mm 1 Rack Unit	2Kg	<25 Watts
AUDIAEXPO	-	8 x Mic/line level	Plug-in Barrier Strip	Cobranet Ethernet	(W x H x D): 483 x 45 x 146mm 1 Rack Unit	2kg	<25 Watts
AUDIAEXPI-4	4 x Mic/Line Level with 48V Phantom Power		Plug-in Barrier Strip	Cobranet Ethernet PoE	(W x H x D): 483 x 45 x 283mm Half Rack width	1.4Kg	<13 Watts
AUDIAEXPO-4		4 x Mic/line level	Plug-in Barrier Strip	Cobranet Ethernet PoE	(W x H x D): 216 x 38 x 152mm Half Rack width	1.4Kg	<13 Watts
AUDIAEXPI/O-2	2 x Mic/Line level with 48V Phantom Power	2 x Mic/Line level	Plug-in Barrier Strip	Cobranet Ethernet PoE	(W x H x D): 216 x 38 x 152mm Half Rack width	1.4Kg	<13 Watts

NPS-1 Networked Paging Station

Designed exclusively for use with AudiaFLEX and AudiaFUSION systems, the Networked Paging Station-1 is a microphone console engineered to carry audio, control and power all through a single cable. Featuring an innovative user interface, the NPS-1 allows users to quickly switch between pre-programmed paging groups and zones, making it perfect for stadiums, convention centers, shopping malls, hospitals and similar facilities. The microphone console integrates with AudiaFLEX and AudiaFUSION networks via CobraNet® and can be used within multiple station/multiple device systems.

- CobraNet audio/control plus power on single cable
- Power-Over-Ethernet (PoE) or external supply
- 16 simultaneous pages allowed per AudiaFLEX unit
- 32 programmable microphone button operations
- 16 priorities, with override and lock-out functions
- Weight: 0.41kg

Networked Media Systems

Control Devices

RED-1/RED-1F Remote Ethernet Devices

Offers a simple, intuitive interface for end users and can be installed and configured to fit the unique needs of a particular application

- Connects via standard CAT-5/6/7 cabling and is powered over Ethernet (PoE)
- Adjustment and/or initiation of 32 selectable system volumes and actions
- Volumes control capabilities including inputs, outputs, matrix cross-points, etc.
- Trigger system operations, including presets, source selection, mutes, ducking, combining, etc.
- Control functions are programmed in the Audia and Nexia system design software
- High contrast OLED display with a wide viewing angle
- Capacitive touch technology eliminates protruding and moving parts to increase reliability and longevity
- Surface-mount (RED-1) or flush mount (RED-1F) versions

Select 8 – Remote wall panel

- Initiation of eight selectable actions. Actions include presets, mutes, ducking, combining, etc.
- DC Power consumption: 650mW
- Dimensions: (W x H x D): 69.85x 114.3 x 29.21mm

Volume 8 - Remote wall panel

- Adjustment of eight selectable volumes. Volumes include inputs, outputs, matrix cross-points, etc.
- DC Power consumption: 600mW
- Dimensions: (W x H x D): 69.85x 114.3 x 29.21mm

Volume/Select 8- Remote wall panel

- Combines Volume 8 and Select 8 functions.
- DC Power consumption: 800mW
- Dimensions: (W x H x D): 115.57 x 114.3 x 29.21mm

Logicbox

- Programmable logic inputs/outputs for control of/by Audia or Nexia.
- DC Power consumption: 600mW
- Dimensions: (W x H x D): 231.14 x 40.64 x 82.55mm

Voltage Control Box

- 4-Analog and 4-Logic connections for control of/by Audia or Nexia.
- DC Power consumption: 920mW
- Dimensions: (W x H x D): 174.63 x 40.64 x 76.2mm

Networked Media Systems

Vocia - Networked Paging and Voice Evacuation

Distributed networked smarts. Flexible, scalable features. No-nonsense Biamp quality.
Move forward with confidence – with Vocia.

Your paging and voice evacuation system simply has to work. With Vocia®, the work to install and maintain your system becomes simple.

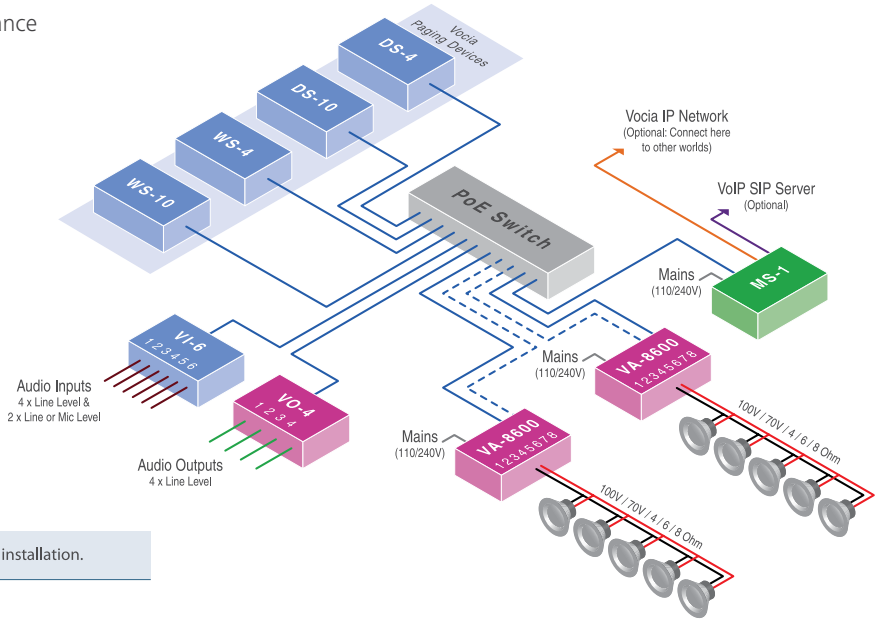
Gone are precarious centralised processing and routing. Instead, every Vocia component contains memory and processing resources that communicate intelligently across your network. By distributing message routing and processing, Vocia prevents any single failure from bringing down your system. Its modular hardware, paired with easy-to-use software, helps you imagine, implement and improve everything from simple overhead paging applications to complex systems with multiple zones and worlds.

Biamp specifically designed Vocia from the ground up to meet compliance standards and codes like EN 54-16 product certification and EN 60849/AS 60849 system verification. Vocia also builds on the network standards you already know, including CobraNet® for single-site installations and TCP/IP across multi-site installations. You can monitor, log and control components remotely, and install or replace new units quickly and easily.

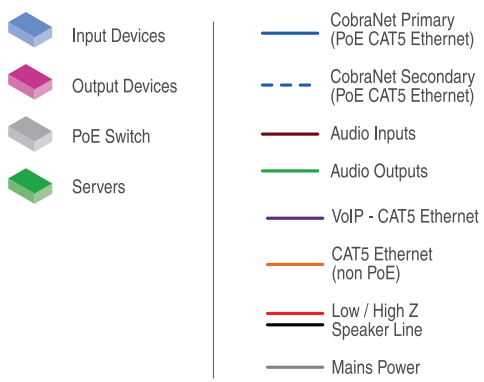
Vocia's decentralised, networked approach builds a more reliable and capable backbone for mission-critical installations in higher education, health care, transportation and other facilities. What could be simpler?

Vocia at a glance

- Distributed processing and page routing
- Voice over IP paging
- System-level monitoring, logging and control
- Meets EN 54-16 safety standards
- Works over standard IP networks and CobraNet
- Smart, easy-to-use desk and wall stations
- Sophisticated, rugged system components
- Advanced controllers for usability and compliance
- Adaptive ambient noise compensation
- Intuitive Windows®-based software



This diagram illustrates a standard, single-world Vocia system installation.



Networked Media Systems

Vocia Audio Inputs

Paging Stations

All Vocia paging stations feature embedded DSP and on-board memory, standard and advanced public address functionality. All device-specific configuration information is stored locally, which means the DS-4 does not rely on a centralised controller for processing and page routing. All microphones are completely monitored ensuring system reliability and performance with comprehensive logging and reporting. Features include:

- Push-to-talk button with status indication and security lockout
- Bright and clear OLED display
- User-configurable page codes with 4 priority levels
- Local digital signal processing, including gain, filters and compressor/limiter
- Auxiliary Port provides connection to control panel with power, line-level audio, and bi-directional RS232 for transmitting Vocia Text Protocol (VTP) commands
- Local storage of default and/or custom preambles
- Built-in store and forward functionality for message stacking
- PoE powered with simple physical device addressing

	Format	Microphone type	Page Codes	Message Storage	Preambles	Power Supply
WS4	Wall station	Replacable noise cancelling, dynamic fist mic includes capsule monitoring	4	2 minutes internal memory	yes - stored internally pre-loaded and customisable	PoE
WS10	Wall Station	Replacable noise cancelling, dynamic fist mic includes capsule monitoring	Up to 999	2 minutes internal memory	yes - stored internally pre-loaded and customisable	PoE
DS4	Desk Console	Condenser capsule includes capsule monitoring	4	2 minutes internal memory	yes - stored internally pre-loaded and customisable	PoE
DS10	Desk Console	Condenser capsule includes capsule monitoring	Up to 999	2 minutes internal memory	yes - stored internally pre-loaded and customisable	PoE
EWS4 EN54 approved	Wall Station	Replacable noise cancelling, dynamic fist mic includes capsule monitoring	4 emergency only	2 minutes internal memory	yes - stored internally pre-loaded and customisable	PoE
EWS10 EN54 Approved	Wall Station	Replacable noise cancelling, dynamic fist mic includes capsule monitoring	Up to 999 emergency only	2 minutes internal memory	yes - stored internally pre-loaded and customisable	PoE

VI6

The VI-6 is a networked audio input expansion device allowing the user to add six channels of background music or user-defined audio to a Vocia system. As part of the Vocia system, the VI-6 meets paging requirements for facilities of all sizes.

- 4 sets of dual RCA connectors, plus terminal block connectors for line-level inputs
- 4 control inputs and 4 control outputs
- 2 microphone/line inputs with phantom power
- Software-configurable local audio signal processing, including gain, filters and compressor/limiter

Vocia Audio Outputs

VO4

The VO-4 is a networked audio output device allowing the user to add four line-level output channels to a Vocia system. The VO-4 accepts four channels of digital audio input via CobraNet and provides four line-level analog audio outputs. The VO-4 features embedded DSP and on-board memory to process and store all device-specific configuration information locally and includes comprehensive fixed-chain digital signal processing.

- Converts digital audio to analog audio
- 4 removable terminal block connectors for line-level outputs
- 4 control inputs and 4 control outputs
- Software-configurable local audio signal processing, including gain, filters and compressor/limiter
- Power over Ethernet (PoE)

Networked Media Systems

Vocia Amplifiers

The VA series is a range of multi-channel digitally networked amplifiers. These units are smart enough and tough enough to make sure your messages get heard. Each model has embedded DSP and on-board memory to process and store messages and configuration information locally. They also include comprehensive fixed-chain digital signal processing and receive audio and control signals over standard IP and CobraNet® networks.

These amplifiers allow for comprehensive failover and end of line monitoring along with sophisticated logging and reporting via Vocia software. The 2000 and 4000 series are fixed channel units while the VA8600 and VA8600C feature modular construction with scalable output power with EN54 certification (*VA8600C only).

	Channels	Output Power per channel	Fixed/ Modular	Inputs	Failover	Size	Power Supply
VA2060	2 channels	60Watts 4/8 Ohm, 25V/70V/100V - Hardware selectable	Fixed	Cobranet	1:1 and Chassis:Chassis	2RU	AC Mains
VA2060E	2 channels	60Watts 4/8 Ohm, 25V/70V/100V - Hardware selectable	Fixed	Cobranet and 2 x balanced local inputs	1:1 and Chassis:Chassis	2RU	AC Mains 24VDC Backup
VA4030	4 channels	30Watts 4/8 Ohm, 25V/70V/100V - Hardware selectable	Fixed	Cobranet	1:1, 3:1 and Chassis:Chassis	2RU	AC Mains
VA4030E	4 channels	30Watts 4/8 Ohm, 25V/70V/100V - Hardware selectable	Fixed	Cobranet and 4 x balanced local inputs	1:1, 3:1 and Chassis:Chassis	2RU	AC Mains 24VDC Backup
VA8600	1 - 8 channels	100Watts - 600Watts (2400 Watts max per chassis) 4/8 Ohm, 70V/100V - Software selectable	Modular Uses VAM600 module	Cobranet	1:1, and Chassis:Chassis (3:1) x 2, 7:1 - requires VFOM module	3RU	AC Mains
VA8600C EN54 Certified	1 - 8 channels	100Watts - 600Watts (2400 Watts max per chassis) 4/8 Ohm, 70V/100V - Software selectable	Modular Uses VAM600C module	Cobranet	1:1, and Chassis:Chassis (3:1) x 2, 7:1 - requires VFOM module	3RU	AC Mains

VFOM

The Vocia failover module is for use in the VA-8600/VA-8600c amplifiers (optional). It offers selectable 7:1 or dual 3:1 amplifier channel failover.

Networked Media Systems

Vocia Controllers

ANC1

The ANC-1 allows automatic, adaptive volume adjustment based on ambient noise sensing in reaction to changes in the environment. The ANC-1 is a networked device for use with the Vocia amplifier range. The Vocia software interface permits comprehensive adjustment of ANC parameters and utilizes IEEE compliant Power over Ethernet (PoE) technology. Includes 48 Volt phantom power on 2 microphone inputs to allow for sampling of greater areas.

ELD1

The ELD-1 is a networked safety device for use with the Vocia amplifier range and is an integral part of standards-compliant voice evacuation and paging notification systems. The unit is used to monitor signal and speaker line integrity of the loudspeaker run.

WR1

The WR-1 is a networked zone wall remote designed to control background audio in user-defined music zones. Utilising Power over Ethernet (PoE) technology, it allows users to select background music sources, inhibit pages and mute sources—all from an attractive, low-profile, wall-mounted panel.

Vocia Life Safety Interfaces

LSI16e

The LSI-16e serves as an enhanced emergency interface between a Vocia system and emergency/fire alarm systems. While typically powered from a certified 24V DC source, it can also utilise Power over Ethernet (PoE).

- Parallel I/O ports for direct interface with fire alarm and emergency equipment
- 8 monitored I/O and 8 control inputs
- Redundant network connection and power supply options
- Power and data over a single Ethernet cable
- Local storage of configuration data
- Up to 4 discrete emergency inputs plus 16 additional general purpose inputs can be programmed to play emergency message, enable zone reset or zone silence; maximum 10inputs can be assigned per emergency zone
- Each general purpose input can be programmed as TTL, high range or monitored high range
- General purpose inputs allow monitoring for short to ground and open circuit
- Up to 500 virtual inputs via RS232 or Ethernet
- Provides system heath monitoring via RS232 or Ethernet
- Rack mountable (1RU)

CI1

The CI-1 Control Interface is a companion product to the Vocia LSI-16 Life Safety Interface. It facilitates necessary connections to the LSI-16 to meet EN 54-16 standards.

- Silence, System Test and System Fault Reset
- High level sounder for Fault/Alarm warning
- Provides terminating resistors for Alarm and Fault Inputs
- Provides terminating resistors for any unused monitored outputs
- Rack mountable (1RU)

Networked Media Systems

Vocia Servers

MS1

The MS-1 is a networked message server that supports multiple paging functions within a Vocia system—including message playback, event scheduling, VoIP paging interface, logging and remote access. The MS-1 is the gatekeeper to the Vocia world, unlocking the full capabilities of the Vocia platform.

- Recorded message storage and playback
- Event scheduling
- Storage of logged system data
- VoIP paging interface
- Facilitates Inter-world paging support
- System configuration storage and service
- CobraNet audio/control with dynamic use of available bundles over single Ethernet cable
- Remote third party control capability

TTS1

The TTS-1 is a networked text-to-speech engine that supports the creation of browser-based courtesy announcements. The TTS-1 uses Ethernet-based control protocols in conjunction with CobraNet to function within a Biamp Vocia system and constructs announcements using a set of user-defined templates.

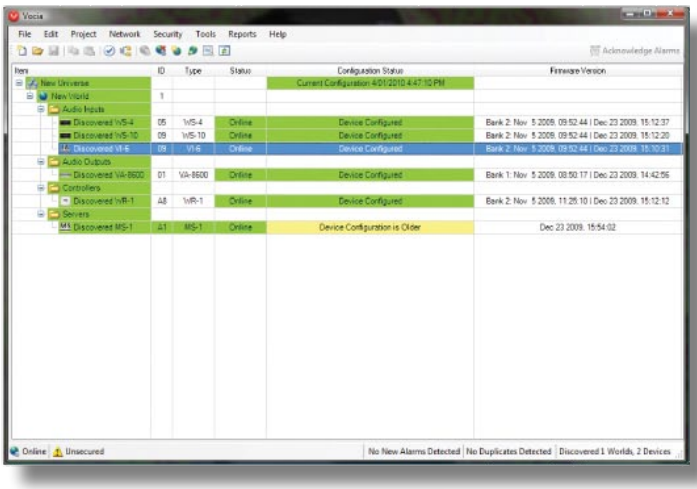
- Text-to-speech announcement creation from any computer with appropriate network access
- Announcements in multiple languages and voices
- User-defined templates
- CobraNet audio/control with dynamic use of available bundles over single Ethernet cable

Software

The software that controls Vocia® provides an easy, at-a-glance overview of your universe — regardless of how many worlds it includes — and is designed for ease-of-use and intuitive interfacing. It can be used for programming, monitoring and live audio and control. Specifically Vocia's sophisticated software capabilities include self-monitoring of the overall system health, which automatically sends email alerts on the status. Remote monitoring allows system managers to check on the status of the system from anywhere just by logging in.

The Vocia CobraNet® Bridge is designed to interface to any CobraNet audio system using explicit bundle numbers. Now you can expand existing audio systems and add Vocia functionality for critical paging and life safety functionality.

With Vocia's advanced features like the scheduler, third-party control, remote and system health monitoring, and a sophisticated log viewer, never has managing a multi-zone, multi-building system been so fast and easy.



Speakers

Ceiling, Low Impedance

CM610

CM710

CM710

Niles Multipurpose Ceiling Mount Loudspeakers

For use as primary loudspeakers in price-sensitive installations

- Integrated woofer/baffle design
- Polypropylene cone woofer with treated urethane surround
- Fluid-cooled Kaladex® tweeter
- Includes a flush-mount aluminum grille plus a special recessed cloth grille that masquerades as a light fixture
- Warranty: Limited Lifetime

Model	Impedance	Power Handling	Frequency Response	Tweeter	Woofer	Cutout Dimension	Overall Frame Dimension	Depth
CM610	8	50W	65Hz to 20kHz	3/4"	6"	165mm	197mm	92mm
CM710	8	75W	59Hz to 20kHz	3/4"	7"	205mm	235mm	92mm
CM710SI	8	75W	61Hz to 20kHz	Dual 3/4"	7"	205mm	235mm	92mm

CM630

CM730

CM730SI

CM830

Niles Performance Ceiling Mount Loudspeakers

Blending value and performance, a quality loudspeaker suitable for a variety of applications

- Integrated woofer/baffle design
- Polypropylene woofer cone with butyl rubber surround
- Fluid-cooled UltraSilk® soft-dome tweeter
- Proprietary bridge-mounted tweeter adjustment mechanism focuses the high frequency sounds in any direction up to 20-degress
- Flush-mount MicroPerf™ aluminum grille
- Warranty: Limited Lifetime

Model	Impedance	Power Handling	Frequency Response	Tweeter	Woofer	Cutout Dimension	Overall Frame Dimension	Depth
CM630	8	75W	65Hz to 20kHz	1"	6"	165mm	197mm	92mm
CM730	8	100W	59Hz to 20kHz	1"	7"	205mm	235mm	110mm
CM730SI	8	100W	60Hz to 21kHz	Dual 1"	7"	205mm	235mm	110mm
CM830	8	125W	49Hz to 21kHz	1"	8"	240mm	270mm	110mm

DS7PR

DS7FX

DS8PR

Niles Directional Ceiling Mount Loudspeakers

Patented Directed Soundfield™ technology directs the sound to the listening area, regardless of where the loudspeakers are installed. The perfect blend between value and performance, these loudspeakers deliver high-performance sound in a wide variety of applications.

- Integrated baffle/frame assembly
- Glass fiber woofer cone with curvilinear profile
- Fluid-cooled Teteron® dome tweeter
- Dialogue switch on direct firing models, for center channel applications
- Bipole/Dipole switch on effects model, for surround mode room matching
- Tweeter level switch
- Weather-resistant construction

Model	Impedance	Power Handling	Frequency Response	Tweeter	Woofer	Cutout Dimension	Overall Frame Dimension	Depth
DS7PR	8	130W	52Hz to 21kHz	1"	7"	216mm	252mm	136mm
DS8PR	8	140W	48Hz to 21kHz	1"	8"	248mm	283mm	136mm
DS7FX	8	140W	52Hz to 21kHz	Dual 1"	7"	216mm	252mm	136mm

Speakers

Ceiling, High Impedance

TOA PC648R/PC658R

- Entry level 100 volt line ceiling speakers
- Spring clamp mechanism for easy speaker mounting to the ceiling
- PP Resin frame and metal mesh grille

	Impedance	Power Handling	Sensitivity (1W/1M)	Frequency Response	Drivers	Cutout (mm)	Depth (mm)	Weight (kg)
PC648R	100 volt line	6 W	89dB	120 Hz - 18kHz	120 mm single Cone	145	70	0.465
PC658R	100 volt line	6 W	90dB	70Hz - 16kHz	150 mm single cone	170	70	0.502

TOA PC1869/PC2369/PC2869/PC2852/PC2668

- Slim line design 100 volt line speaker
- Metal frame and grille
- Spring clamp mechanism for easy speaker mounting to the ceiling
- A push-type input terminal allows easy cable connections and bridge wiring
- PC2668 – designed for surface mounting

	Impedance	Power Handling	Sensitivity (1W/1M)	Frequency Response	Drivers	Cutout (mm)	Depth (mm)	Weight (kg)
PC1869	100 volt line	6 W	90dB	55Hz - 18kHz	120 mm single cone	150	72	0.62
PC2369	100 volt line	6 W	93dB	45Hz - 20kHz	150 mm twin cone	200	79	0.76
PC2869	100 volt line	6 W	94dB	40Hz - 20kHz	200 mm twin cone	250	92	1.4
PC2852	100 volt line	15 W	96dB	45Hz - 20kHz	200 mm with coaxially tweeter	250	92	1.6
PC2668	100 volt line	6 W	90dB	100Hz - 16kHz	120 mm single cone	N/A	92.5	0.82

TOA CM760/CM960

- 6 watt 100 volt line ceiling speaker
- Rectangular housing is held in place by CP77 grille
- Ideally suited to mini strip and pressed metal ceilings
- CP77/CP97 grille sold separately

	Impedance	Power Handling	Sensitivity (1W/1M)	Frequency Response	Drivers	Cutout (mm)	Depth (mm)	Weight (kg)
CM760	100 volt line	6 W	90dB	100Hz - 16kHz	120 mm single cone	150	89	0.63
CM960	100 volt line	6 W	92dB	100Hz - 12kHz	160 mm twin cone	200	106.5	0.85

Speakers

Ceiling, Switchable High/Low Impedance

F2352SC

F1522SC

F2322C / F2352C

F2852C

TOA F1522SC/F2352SC/F2322C/F2352C/F2852C

- Wide dispersion (up to 170 degrees)
- Enables even coverage in large areas with fewer speakers than conventional design
- Front baffle adjustment for impedance and power tap selections
- Clamp type mounting for easy installation

Optional Accessories for the F Series Ceiling Speakers

HYBC1	Hanging Back Can for F2352SC, F2322C and F2352C
HYTR1	Trim Ring for Retrofitting to Existing Holes over 200mm
HYTB1	Tile Bar Bridge
HYAH1	Anchor Hanging Bracket

	Impedance	Power Handling (100V/8 ohm)	Sensitivity (1W/1M)	Frequency Response	Dispersion	Drivers	Cutout (mm)	Depth (mm)	Weight (kg)
F1522SC	100 volt line, 8 or 16 ohm	6W/9W	88dB	65 Hz - 18kHz	160 degrees	100 mm wide range	135	117	1
F2352SC	100 volt line, 8 or 16 ohm	6W/9W	89dB	80 Hz - 20kHz	155 degrees	120 mm and dome tweeter	200	154	1.5
F2322C	100 volt line, 8 or 16 ohm	30W/60W	90dB	70 Hz - 20kHz	170 degrees	120 mm wide range	200	200	3.7
F2352C	100 volt line, 8 or 16 ohm	30W/60W	90dB	70 Hz - 20kHz	170 degrees	120 mm and dome tweeter	200	229	3.7
F2852C	100 volt line, 8 or 16 ohm	60W/90W	91dB	60 Hz - 20kHz	120 degrees (for ceiling up to 6 metres)	160 mm and dome tweeter	250	227	5.1

Speakers

Ceiling, Switchable High/Low Impedance

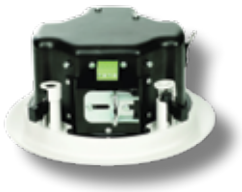
Tannoy CVS Series

Medium Format Ceiling Speakers

The Tannoy CVS series has been developed to deliver the best possible performance / price balance. CVS speakers are specifically designed for applications requiring the combination of sound quality for music and speech reinforcement with reliability, intelligibility and value for money.

- Low profile coaxial in ceiling speakers
- Best in class performance to price ratio
- 100V or lowZ operation on all models
- Integral steel back cans
- Ferrofluid cooled neodymium HF driver
- Full accessory kit included in every pack - tile bridges and C-Rings
- Rapid fit clamping mechanism

CVS4



CVS4M

CVS6

Model	100V / Low Z	Sens (1W @1m)	Freq Resp (-3dB)	Freq Range (-10dB)	Dispersion (-6dB)	LF	HF	SPL Peak	Cutout (mm)	Total Depth (mm)	Weight (kg)
CVS4 micro	15W / 80 W 6 Ohms	87dB	110Hz - 19kHz	90Hz - 22kHz	90 Degrees Conical	4" mineral loaded	19mm (0.75") soft dome	109 dB	180	98.3	2
CVS4	30 W / 80 W 6 Ohms	87dB	85Hz - 19kHz	77Hz - 22kHz	90 Degrees Conical	4" mineral loaded	19mm (0.75") soft dome	109 dB	18	214	2.6
CVS6	60 W / 120 W 6 Ohms	91dB	79Hz - 21kHz	60Hz - 24kHz	90 Degrees Conical	6" mineral loaded	19mm (0.75") soft dome	115 dB	250	258	4.75
CVS8	60 W / 120 W 6 Ohms	93dB	79Hz - 21kHz	60Hz - 24kHz	90 Degrees Conical	8" mineral loaded	19mm (0.75") soft dome	117 dB	320	264	5.3

Speakers

Ceiling, Switchable High/Low Impedance

CMS401DCE

CMS501

CMS601

CMS801DC

CMS401E

CMS501DC

CMS601DC

CMS801SUB

Tannoy CMS Series

Premium Quality Discrete In-Ceiling Loudspeakers

The CMS (Ceiling Monitor System) series provides the premium audio solution for a high performance ceiling loudspeaker installation. Offering the system designer, architect and installer the very highest audio quality, intelligibility, coverage and power handling from a loudspeaker design that is extremely low profile and sympathetic to venue décor.

- Industry standard for in ceiling performance
- Optimal sonic performance, intelligibility, coverage pattern and reliability
- Class-leading Tannoy Dual Concentric™ drive unit technology
- 100V or lowZ operation on all models
- Small footprint
- Powder coated steel back can with integrated, recessed termination box
- Full accessory kit included in every pack - tile bridges and C-Rings
- Rapid fit clamping mechanism

CMS 1201DC

The CMS 1201DC is a powerful state-of-the-art large format in-ceiling loudspeaker conceived, designed and built to complement Tannoy's existing class-leading CMS range. From the pioneers of point source and large format ceiling speakers the CMS 1201DC is engineered from the ground up with superior full-range performance in mind to handle demanding distributed sound applications such as ballrooms, shopping malls, sports halls, airports and other high ceiling installations.

Model	100V / Low Z	Sensitivity (1W@1m)	Freq Resp (-3dB)	Freq Range (-10dB)	Dispersion (-6dB)	LF Driver	HF Driver	SPL Peak	Cutout (mm)	Total Depth (mm)	Weight (kg)
CMS 401E	30 W / 100 W 6 Ohms	88dB	110Hz - 22kHz	80Hz - 24kHz	90 Degrees Conical	4" mineral loaded	ICT aluminium dome	111 dB	187	147	3
CMS401 DCE	30 W / 120 W 8 Ohms	88dB	110Hz - 50kHz	80Hz - 54kHz	90 Degrees Conical	4" Dual Concentric	19mm (0.75") tit dome	112 dB	187	147	2.7
CMS501	30 W / 100 W 6 Ohms	89dB	85Hz - 22kHz	74Hz - 24kHz	90 degrees conical	5" mineral loaded	ICT aluminium dome	112 dB	190	206	3.6
CMS501 DC	30 W / 120 W 8 Ohms	89dB	85Hz - 50kHz	74Hz - 54kHz	90 degrees conical	5" Dual Concentric	19mm (0.75") tit dome	113 dB	190	206	3.9
CMS601	60 W / 120 W 6 Ohms	91dB	78Hz - 22kHz	51Hz - 24kHz	90 degrees conical	6" mineral loaded	ICT aluminium dome	112 dB	253	275	6.5
CMS601 DC	60 W / 160 W 8 Ohms	91dB	75Hz - 30kHz	50Hz - 30kHz	90 degrees conical	6.5" Dual Concentric	25mm (1.00") tit dome	116 dB	253	275	7.45
CMS801 DC	60 W / 180 W 8 Ohms	92dB	47Hz - 30kHz	40Hz - 35kHz	90 degrees conical	8" Dual Concentric	25mm (1.00") tit dome	118 dB	295	327	6.5
CMS1201DC	400 W 8 Ohms	97 dB	60Hz - 20kH	45Hz - 30kH	90 degrees conical	12" Dual Concentric	34mm aluminium dome	126 dB	725 x 516	331	29 (including backbox)

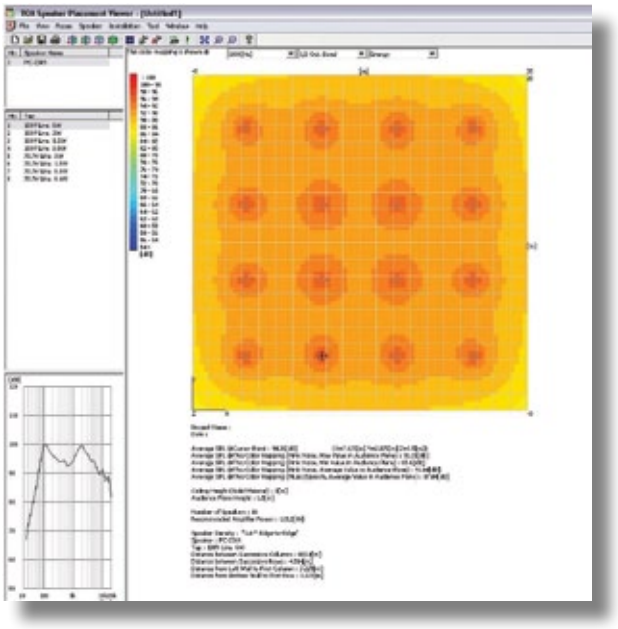
Speakers

Speaker Software

TOA Speaker Placement Software

TOA Speaker Placement Viewer is the easy way to simulate the amount of speakers necessary in a room. In addition to all TOA Public Address and ProSound speakers the latest version 2.0 includes the possibility to simulate the TOA Line Arrays as well.

- Design and layout systems in minutes!
- Automatic or manual layout modes
- Colour display of sound pressure level with adjustable resolution
- Interactive frequency response display — changes in real-time as you move the mouse through the coverage area
- Updated speaker database includes most TOA models plus generic 4", 5" and 8" ceiling speakers
- Rectangular or hexagonal layout patterns — maximum overlap, minimum overlap and edge-to-edge
- Adjust individual speakers — location, power and placement angles
- Minimum, maximum and average SPL display for both pink noise and music/speech
- Selectable frequency centres — 1/12, 1/6, 1/3, 1, 2 and 4th octave
- Print function includes colour plots and speaker locations with print preview
- More convenient features:
- Recommended amplifier power calculation
- Energy or interference modes
- Normal or reverse polarity for individual speakers
- Metric or imperial units
- Zoom in/out and fit modes
- Distance between columns/rows

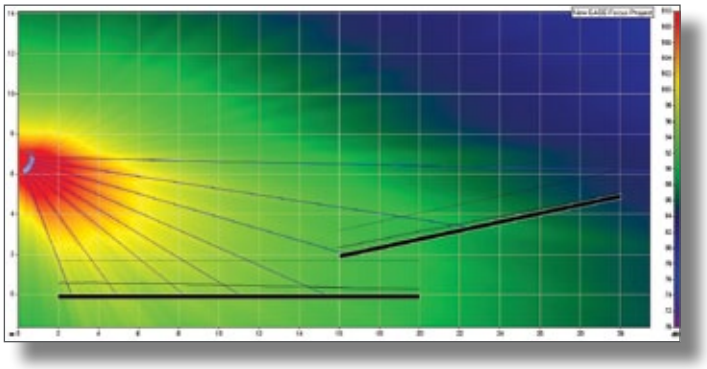


EASE Focus for TOA

EASE Focus is software that allows the modelling of acoustic sources, in particular line arrays, in two dimensions. It considers the direct field created by the complex addition of the sound contributions of individual loudspeakers or array elements. Based on an intuitive and consistent interface, EASE Focus is targeted at the end user, and the R&D engineer. The purpose of EASE Focus is to provide both, the end user, who needs to set up the array for a show, as well as the developer, with a tool that allows the easy and quick prediction of the array performance in a given venue. Developed for the Microsoft .NET platform the software offers great usability, high performance and portability.

Features

- Aiming and colour mapping display
- Zoomed rigging display
- Extended report for printing
- Levels over audience areas
- Presets for audience areas and array setup
- SPL in 1/3rd octaves, octaves,3 octaves, broadband
- RMS, program and peak levels
- Flat and A-weighted levels
- Air attenuation according to ISO 9613
- Complex modelling of cabinets with multiple sources per cabinet
- Amplitude shading
- Optimized SPL calculation routines for interactive aiming



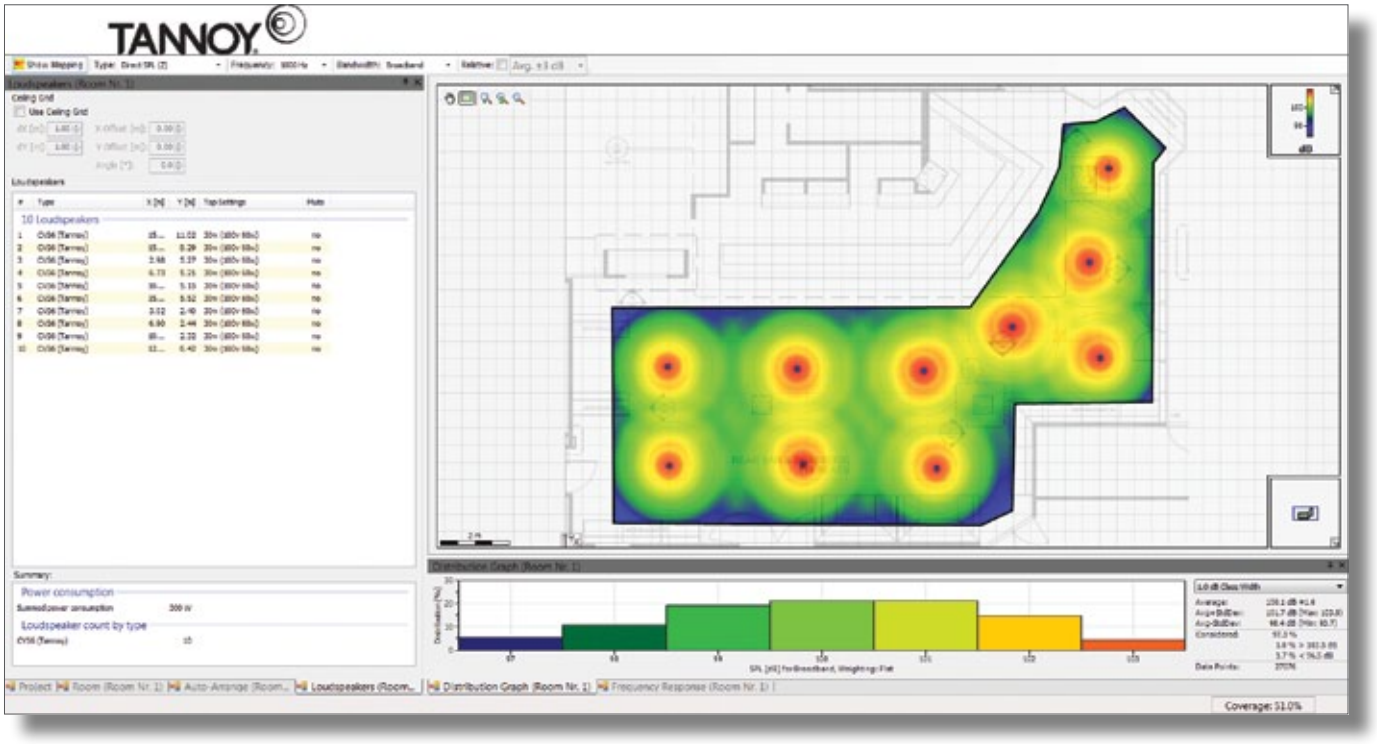
Speakers

Speaker Software

Ease Address for Tannoy

EASE Address is a design verification software package that enables system designers to accurately position, model and confirm ceiling distributed speaker systems utilising Tannoy loudspeaker products. Unlike conventional 2D ceiling speaker software, EASE Address allows for complex room shapes with varying ceiling heights. EASE Address models the direct sound output of distributed systems in two dimensions, using the acoustical calculation engine behind EASE (Enhanced Acoustic Simulator for Engineers); the industry standard for sound reinforcement modelling.

- Model Constant-Voltage or low impedance systems
- Select from a wide range of Tannoy in ceiling models
- Import floor plans to create scale drawings
- Import and export of EASE project files
- Auto-arrange option for SPL variation
- Create reports to back up your design in minutes
- Available free: ask your APG Area Manager



Speakers

Niles Multipurpose In-Wall

Niles MP5R - MP6R

For price sensitive and background music applications
- Talc-filled polypropylene cone woofer with treated foam cone surround
- Fluid-cooled Kaladex dome tweeter
- Proprietary tweeter adjustment mechanism ratchets in 1mm increments and pivots for precise aiming of high frequencies
- Flush-mount MicroPerf™ aluminum grille

MP5R

MP6R

Model	Woofer Size	Tweeter Size	Tone Controls	Frequency Response	Power Handling	Impedance	Cutout Dimension (wxh)	Overall Dimension (wxhxd)
MP5R	5.25" (133mm)	0.75" (19mm)	no	75Hz to 20kHz	60 watts	8 ohm	160mm x 230mm	180mm x 250mm x 92mm
MP6R	6.5" (165mm)	0.75" (19mm)	no	65Hz to 20kHz	75 watts	8 ohm	194mm x 270mm	222mm x 300mm x 92mm

Niles Performance In-Wall

Niles PR5R - PR6R

Superb value and performance for a wide variety of applications
- Talc-filled polypropylene cone woofer with Butyl rubber surround
- Fluid-cooled Kaladex dome tweeter
- Proprietary tweeter adjustment mechanism ratchets in 1mm increments and pivots for precise aiming of high frequencies
- Baffle-mounted bass and treble controls
- Flush-mount MicroPerf™ aluminum grille

PR5R

PR6R

Model	Woofer Size	Tweeter Size	Tone Controls	Frequency Response	Power Handling	Impedance	Cutout Dimension (wxh)	Overall Dimension (wxhxd)
PR5R	5.25" (133mm)	0.75" (19mm)	yes	70Hz to 21kHz	100 watts	8 ohm	160mm x 230mm	180mm x 250mm x 92mm
PR6R	6.5" (165mm)	0.75" (19mm)	yes	60Hz to 20kHz	100 watts	8 ohm	194mm x 270mm	222mm x 300mm x 92mm

Speakers

Tannoy In-Wall

IW4DC

IW6DC

IW62TDC

IW62TS

Tannoy In-wall Series

Many in-wall and ceiling loudspeakers are designed simply to reproduce sound without any consideration for ultimate audio quality and vocal articulation. Not so with Tannoy installation products. Tannoy speakers are monitor quality systems based on the company's expertise in the manufacture of premium quality cabinet loudspeakers and studio monitors.

- High definition Dual Concentric™ flush mount in wall speakers
- Wide, controlled constant directivity dispersion for optimum coverage
- Six way self-aligning mounting system
- Ferrofluid cooled neodymium high frequency driver
- Single or dual driver models
- Gold plated spring loaded terminals

Model	Power handling	Sens (1W @1m)	Freq Resp (-3dB)	Freq Range (-10dB)	Dispersion (-6dB)
iW4DC	120 W Ohms	88 dB	85Hz - 50kHz	74Hz - 54kHz	90 degrees conical
iW6DC	180 W 8 Ohms	91dB	75Hz - 51kHz	36Hz - 54kHz	90 degrees conical
iW62TDC	210 W 8 Ohms	92dB	70Hz - 51kHz	34Hz - 54kHz	90 degrees conical
iW62TS	400 W 8 Ohms	94dB	29Hz - 110kHz	na	na

Model	LF	HF	SPL Peak	Cutout (mm)	Total Depth (mm)	Weight (kg)
iW4DC	4" Dual Concentric	19mm (0.75") tit dome	112 dB	206 x 135	84	2.6
iW6DC	6.5" Dual Concentric	25mm (1.00") tit dome	116 dB	271.5 x 168.5	99	3
iW62TDC	6.5" Dual Concentric + 6.5" bass	25mm (1.00") tit dome	118 dB	426 x 187.6	99	5
iW62TS	2 x 6.5" long throw woofers	na	123 dB	426 x 187.6	96	6.5

Speakers

Pendant and Projector

TOA PE64/PE304 Pendant Speakers
TOA PJ64/PJ304 Projection speakers

- Repaintable enclosure designed to mimic the look of a light fitting
- Sturdy cable extendable up to 5 meters with the pendant models
- Adjustable wall bracket for the projector models
- 100 volt line with an 8 ohm option on the PE and PJ 304

PE64 PE304

PJ64 PJ304

	Colour	Impedance	Power Handling	Sensitivity (1W/1M)	Frequency Response	Drivers	Dimensions (mm)	Weight (Kg)
PE64	White	100 volt line	6 W	90 dB	100 Hz - 18 kHz	120 mm	ø186 x 251(H)	1.5
PE304	White	100 volt line or 8 ohm	30 W	91 dB	70 Hz - 20 kHz	Low Freq; 120 mm,	ø186 x 251(H)	2.1
PJ64	White	100 volt line	6 W	90 dB	100 Hz - 18 kHz	120 mm	ø186 x 369(H)	1.5
PJ304	White	100 volt line or 8 ohm	30 W	91 dB	70 Hz - 20 kHz	Low Freq; 120 mm,	ø186 x 369(H)	2.1

Tannoy OCV6/OCV8

OCV Series pendant loudspeakers deliver the renowned acoustic performance and exceptional value of Tannoy's CVS Series in-ceiling products in an architecturally sensitive, self-contained, lightweight cylindrical enclosure. Engineered specifically for applications where consistent and high quality audio coverage is required in high or open-ceilinged spaces – such as transport terminus, shopping malls or large double or triple height commercial floors – without compromising clarity, intelligibility and SPL.

- Coaxial pendant loudspeakers
- Lightweight self-contained enclosure
- 100V or lowZ operation on all models
- Architecturally sensitive cylindrical form factor for minimal spatial impact
- Quick and easy hanging system
- Easily accessible tapping switch on top of enclosure
- IP54 Rated for water and dust

OCV6

OCV8

Model	Dispersion (-6dB)	LF	HF	SPL Peak	Bezel diameter	Total Depth (mm)	Weight (kg)	100V / Low Z	Sens (1W @1m)	Freq Resp (-3dB)	Freq Range (-10dB)
OCV6	90 degrees conical	6" mineral loaded	19mm (0.75") soft dome	111 dB	260	423	5.9	60 W / 120 W 16 Ohms	88dB	80Hz - 20kHz	60Hz - 30kHz
OCV8	80 degrees conical	8" mineral loaded	25mm (1") soft dome	114 dB	302	292	7.8	60 W / 140 W 16 Ohms	90 dB	80Hz - 20kHz	50Hz - 30kHz

Speakers

Cabinet

TOA BS633A/AT

- 6 watt 100 volt line plastic box speaker
- 120mm single cone driver
- Available with side mounted attenuator (BS633AT)

TOA BS634T

- 6 watt 100 volt line slim box speaker
- 150mm twin cone driver
- Screw attenuator adjustment

BS678T

BS678B

BS678BT

TOA BS678 (T/B/BT)

- 6 watt 100 volt line box speaker
- 150mm twin cone driver
- Available with side mounted attenuator (BS678T, BS678BT)
- Available in black or white

TOA BS1030 (B/W)

- 30 watt two way box speaker
- 100 mm bass driver and 25 mm dome tweeter
- 100 volt line or low impedance
- Comes with a “U” type bracket
- Available in either black (BS1030B) or white (BS1030W).

TOA BS301

- Subwoofer/Satellite speaker system
- 1 x subwoofer with 2 x 150 mm internal bass drivers
- 4 x satellites with 75mm wide range drivers
- All mounting brackets including subwoofer wall/ceiling brackets
- 120 watts continuous program at 6 ohm (per channel stereo)

Speakers

Cabinet

TOA F1000/F1300/F2000

- Designed to provide high quality sound and reliable performance for restaurants, retail and audio/visual applications
- Two-way bass-reflex design with high impact polystyrene enclosure
- 100, 130 or 200 mm low frequency driver plus dome tweeter
- F2000 comes with an adaptor to reduce the dispersion angle of the tweeter
- Switchable 100 volt line or low impedance, black or white, weather resistant version available (100 volt line only)
- All models include a versatile wall/ceiling-mount bracket for easy installation

HYCM10 (B/W)	Ceiling Mount Bracket for F1000/F1300 (black or white)
HYCL10B	Cluster bracket F1000/F1300
YS60B	Pole Mount Bracket F1000/F1300
HYBH10B	Board hanging Bracket F1000/F1300
HYCM20 (B/W)	Ceiling Mount Bracket F2000 (black or white)
HYCL20B	Cluster bracket F2000
YS60B + SP131	Pole Mount Bracket & adaptor

	Colour	Impedance	Power Handling 100V/8 ohm Program)	Sensitivity (1W/1M)	Frequency Response	Dispersion Angle	Drivers (low/ high)	Dimensions (mm)	Weight (kg)
F1000BT	Black	100 volt line or 8 ohm	15W/90W	87 dB	85Hz - 20kHz	90 deg. x 90 deg.	100mm/Dome Tweeter	130 (W) x 202 (H) x 131 (D)	2
F1000WT	White	100 volt line or 8 ohm	15W/90W	87 dB	85Hz - 20kHz	90 deg. x 90 deg.	100mm/Dome Tweeter	130 (W) x 202 (H) x 131 (D)	2
F1000BTWP	Black	100 volt line	15W/90W	87 dB	85Hz - 20kHz	90 deg. x 90 deg.	100mm/Dome Tweeter	130 (W) x 202 (H) x 131 (D)	2
F1000WTWP	White	100 volt line	15W/90W	87 dB	85Hz - 20kHz	90 deg. x 90 deg.	100mm/Dome Tweeter	130 (W) x 202 (H) x 131 (D)	2
F1300BT	Black	100 volt line or 8 ohm	30W/150W	90 dB	80Hz - 20kHz	110 deg. X 100deg.	130mm/Dome Tweeter	162 (W) x 250 (H) x 161 (D)	3.6
F1300WT	White	100 volt line or 8 ohm	30W/150W	90 dB	80Hz - 20kHz	110 deg. X 100deg.	130mm/Dome Tweeter	162 (W) x 250 (H) x 161 (D)	3.6
F1300BTWP	Black	100 volt line	30W/150W	90 dB	80Hz - 20kHz	110 deg. X 100deg.	130mm/Dome Tweeter	162 (W) x 250 (H) x 161 (D)	3.6
F1300WTWP	White	100 volt line	30W/150W	90 dB	80Hz - 20kHz	110 deg. X 100deg.	130mm/Dome Tweeter	162 (W) x 250 (H) x 161 (D)	3.6
F2000BT	Black	100 volt line or 8 ohm	60W/180W	92 dB	65Hz - 20kHz	110 deg. X 100deg.	200mm/Dome Tweeter	244 (W) x 373 (H) x 235 (D)	7.4
F2000WT	White	100 volt line or 8 ohm	60W/180W	92 dB	65Hz - 20kHz	110 deg. X 100deg.	200mm/Dome Tweeter	244 (W) x 373 (H) x 235 (D)	7.4
F2000BTWP	Black	100 volt line	60W/180W	92 dB	65Hz - 20kHz	110 deg. X 100deg.	200mm/Dome Tweeter	244 (W) x 373 (H) x 235 (D)	7.4
F2000WTWP	White	100 volt line	60W/180W	92 dB	65Hz - 20kHz	110 deg. X 100deg.	200mm/Dome Tweeter	244 (W) x 373 (H) x 235 (D)	7.4

Speakers

Cabinet

HS1200BT

HS1500BT

TOA HS1200 (BT or WT) and HS1500 (BT or WT)

- HS Series speakers are equipped with 90° × 40° coaxial tweeter array
- This feature allows tailoring of the speaker's dispersion characteristics to better suit the acoustic environment
- Can be used with 100 volt line or low impedance applications
- Can be installed as wall or ceiling mounted units, or used as a floor monitor
- Available in black or white

TOA HS Series Mounting Accessories

HY1200VB

HY1200VW

HY1500HB

HY1500HW

HY1500VB

HY1500VW

HYW0801

HYC0801

HY1200H (B or W)	Horizontal Mounting Bracket for HS1200BT - Black
HY1200V (B or W)	Vertical Mounting Bracket for HS1200BT - Black
HY1500H (B or W)	Horizontal Mounting Bracket for HS1500BT - Black
HY1500V (B or W)	Vertical Mounting Bracket for HS1500BT - Black
HYW0801	Wall Mounting Adaptor - Black
HYW0801W*	Wall Mounting Adaptor - White
HYC0801*	Ceiling Mounting Adaptor - Black
HYC0801W*	Ceiling Mounting Adaptor - White
* To Be Used With HY1200/HY1500 Series Brackets	
* B = Black version, W = White version	

	Colour	Impedance	Power Handling (100V/8 ohm Program)	Sensitivity (1W/1M)	Frequency Response	Dispersion Angle	Drivers (low/high)	Dimensions (mm)	Weight (kg)
HS1200BT	Black	100 volt line or 8 ohm	60W/300W	97 dB	70Hz - 20kHz	90 deg. X 60 deg.	300mm/6 x Coaxial Dome	361 (W) × 448 (H) × 320 (D)	10
HS1200WT	White	100 volt line or 8 ohm	60W/300W	97 dB	70Hz - 20kHz	90 deg. X 60 deg.	300mm/6 x Coaxial Dome	361 (W) × 448 (H) × 320 (D)	10
HS1500BT	Black	100 volt line or 8 ohm	60W/300W	98 dB	60Hz - 20kHz	90 deg. X 60 deg.	380mm/6 x Coaxial Dome	451 (W) × 560 (H) × 400 (D)	14
HS1500WT	White	100 volt line or 8 ohm	60W/300W	98 dB	60Hz - 20kHz	90 deg. X 60 deg.	380mm/6 x Coaxial Dome	451 (W) × 560 (H) × 400 (D)	14

Speakers

Cabinet

Peavey PV Series

Hartley Peavey founded Peavey Electronics on the principle of making high-quality, professional gear that sounds great but won't break the bank. Peavey has been honing that art since 1965, and no sound reinforcement line combines performance and value like the PV Series.

A full range of enclosures, subwoofers and monitors, the PV Series stacks up with heavy-duty loudspeakers, titanium compression drivers and impressive high-power handling. The PV 215, PV 115 and PV 112 are loaded with constant-directivity horns that produce clean highs and targeted sound coverage, and range between 400 and 700 watts program power handling.

When it's time to get the party started, PV Series subwoofers are ready to rumble. The passive PV 118 sub has an optimized internal low-pass crossover network and ranges from 40 Hz to 180 Hz with 400 watts program power handling, while the active PV 118D features a built-in class-D amp that drives an 18" woofer with 300 watts total power.

No sound-reinforcement line would be complete without monitors, and we offer three models tailored for stage duty.

Five year warranty.

PV 15M PV115PM PV12M PV118D PV118SUB PV 112 PV115 PV215

	Application	Power handling (program)	Configuration	Input	Dimensions (HxWxD)
PV112	front of house, full range	400	1 x 12" plus RX14 titanium compression driver	6.35mm x 2	638mm x 402mm x 375mm; 21.3kg
PV115	front of house, full range	400	1 x 15" plus RX14 titanium compression driver	6.35mm x 2	806mm x 467mm x 362mm; 24.1kg
PV215	front of house, full range	700	2 x 15" plus RX14 titanium compression driver	6.35mm x 2	1225mm x 467mm x 362mm; 35.9kg
PV118	subwoofer	400	1 x 18"	6.35mm x x2	686mm x 559mm x 495mm; 33.4kg
PV118D	active subwoofer	includes 300W amplifier	1 x 18" (120Hz electronic crossover)	XLR and 6.35mm	686mm x 559mm x 495mm; 36.2kg
PV12M	stage monitor	500	1 x 12" plus 14XT compression driver	6.35mm	413mm x 564mm x 318mm; 15.9kg
PV15M	stage monitor	500	1 x 15" plus 14XT compression driver	6.35mm	413mm x 529mm x 318mm; 17.7kg
PV15PM	active stage monitor	includes 200W bi-amplifier	1 x 15" plus 14XT compression driver	XLR/6.35mm combi input	413mm x 529mm x 318mm; 21.4kg

Speakers

Cabinet

Peavey PR Series

Available in passive and active (powered) versions, the PR Series delivers superior sound quality by utilising advanced materials, like the light weight, roadworthy, moulded polypropylene exteriors.

The PR family features black powder-coated steel grilles that provide driver protection and a professional appearance. These speakers can be used on the floor, be pole mounted or flown via top and bottom flying inserts. In addition, the unique Peavey Versamount facilitates wall and ceiling mounting: see photo.

Five year warranty.

PR10

PR12

PR15

PR12D

PR15D

	Type	Power handling (program)	Configuration	Input	Dimensions (hxwxd)
PR10	passive	400	1 x 10" plus RX14 titanium compression driver	6.35mm x 2	495mm x 356mm x 333mm; 10.5kg
PR12	passive	400	1 x 12" plus RX14 titanium compression driver	6.35mm x 2	609mm x 463mm x 368mm; 15kg
PR15	passive	400	1 x 15" plus RX14 titanium compression driver	6.35mm x 2	736mm x 558mm x 435mm; 19.1kg
PR12D	active, with digital biamplifier	200W + 70W digital amps	1 x 12" plus RX14 titanium compression driver	XLR/6.35mm combi input plus 6.35mm link input and output	609mm x 463mm x 368mm; 13kg
PR15D	active, with digital biamplifier	200W + 70W digital amps	1 x 15" plus RX14 titanium compression driver	XLR/6.35mm combi input plus 6.35mm link input and output	736mm x 558mm x 435mm; 16.4kg

Speakers

Cabinet

Peavey SP Series

Peavey's reputation for reliability and innovation starts with the SP Series, and with good reason: for more than three decades, these renowned loudspeaker enclosures have been the proving ground for many of the company's enduring innovations in sound reinforcement. SP Series enclosures are built to last in the U.S.A. (supported by five year warranty) with patented and exclusive technologies that not only make your sound clear and true, but also efficient and strong.

Durable Peavey Black Widow® series loudspeakers are the centerpiece, designed with Kevlar-impregnated cones and 4" edge-wound aluminium ribbon voice coils wound on Kapton formers for high efficiency and sensitivity. With die-cast aluminium alloy frames, a vented magnet structure that allows superior cooling at high drive levels, and heavy-duty, spring-loaded terminals with industry-standards colour coding, Black Widow loudspeakers are everything you expect from a professional application loudspeaker.

Every enclosure in the SP Series features Peavey's field-replaceable speaker basket design, an exclusive feature that allows you to replace blown cones on the gig with ease. Speaker re-coning is expensive and can take weeks, but with Peavey speakers you can replace the entire cone just by removing three screws. And only Peavey speakers are made to the precise tolerances required for field replacement.

SP Series enclosures offer clarity and efficiency in the high frequency range through specially-designed two-inch RX22™ titanium diaphragm compression drivers with ferrofluid cooling. Coupled to the patented Quadratic Throat Waveguide™ these drivers provide smooth, even response, low distortion and excellent HF dispersion. The horn has an asymmetrical vertical polar response, so it aims the sound directly at the audience members and minimises ceiling reflections for clarity and gain before feedback.

SP15M SP12M SP3 SP5 SP118 SP2 SP218 SP4

	type	power handling (program)	configuration	Input	dimensions (hxwxd)
SP2	front of house, full range	1,000W	1 x 15" plus RX22 compression driver	Speakon plus 6.35mm; can be biamplified	781mm x 527mm x 585mm; 33kg
SP3	front of house, full range	1,200W	three way: 1 x 15", 1 x 6.5" with phase plug and 1 x RX22 compression driver	Speakon plus 6.35mm; can be biamplified	879mm x 527mm x 587mm; 38kg
SP4	front of house, full range	2,000W	2 x 15" plus RX14 titanium compression driver	Speakon plus 6.35mm; can be biamplified	1245mm x 527mm x 588mm; 52kg
SP5	front of house, full range	800W	1 x 15" plus RX22 compression driver	Speakon plus 6.35mm	696mm x 527mm x 419mm; 26kg
SP118	sub-woofer	1,200W	1 x 18"	Speakon plus 6.35mm	781mm x 531mm x 743mm; 39kg
SP218	sub-woofer	2,400W	2 x 18"	Speakon plus 6.35mm	1080mm x 550mm x 753mm; 56kg
SP12M	stage monitor	1,000W	1 x 12" plus RX22 compression driver	Speakon plus 6.35mm	388mm x 575mm x 451mm; 21kg
SP15M	stage monitor	1,000W	1 x 15" plus RX22 compression driver	Speakon plus 6.35mm	388mm x 616mm x 464mm; 22kg

Speakers

Cabinet

DVS6TW

Tannoy DVS SERIES

STYLISH SURFACE MOUNT LOUDSPEAKERS

Designed for a wide variety of discrete small scale sound reinforcement applications, DVS Series is an ultra-compact surface mount loudspeaker of exceptional value and acoustic performance, designed for commercial, professional and residential applications where environmental durability and high quality sound reproduction are required. DVS Series products are rated IP64.

- Cost effective coaxial surface mount speakers
- Entry level into a premium brand
- Stylish, compact IP64 enclosures
- 100V or lowZ operation
- Yoke brackets included
- Available in black or white

DVS4TB

Model	100V / Low Z	Sens (1W @1m)	Freq Resp (-3dB)	Freq Range (-10dB)	Dispersion (-6dB)	LF	HF	SPL Peak	Enclosure	Dimesions (hxwxd)	Weight each (kg)
DVS4T	30 W / 80 W 6 Ohms	84 dB	90Hz - 20kHz	75Hz - 30kHz	110 degrees conical	4" mineral loaded	20mm (0.79") soft dome	106 dB	ABS	277 x 170 x 165	2.3
DVS6T	60 W / 120 W 6 Ohms	88 dB	80Hz - 20kHz	65Hz - 30kHz	90 degrees conical	6.5" mineral loaded	20mm (0.79") soft dome	111 dB	ABS	340.x 212 x 216	4.1
DVS8T	60 W / 140 W 6 Ohms	90 dB	75Hz - 20kHz	60Hz - 30kHz	80 degrees conical	6.5" mineral loaded	20mm (0.79") soft dome	114 dB	ABS	451 x 290 x 296	6.3

Speakers

Cabinet

Tannoy DI SERIES

ALL WEATHER / GENERAL PURPOSE SURFACE MOUNT

The Tannoy Di Range is a high performance, ultra compact, full bandwidth series of passive surface mount loudspeakers. They are fully optimised for indoor or outdoor use in professional or residential applications where environment durability and high quality sonic performance are required. All the passive models in the range are weather resistant; rated IP64 to EN60529.

- High definition Dual Concentric™ surface mount speakers
- Stylish, compact, IP64 enclosure
- Choose between low Z or switchable 100V / low Z versions
- Yoke brackets included
- Available in black or white

Tannoy DI ACTIVE POWERED SURFACE MOUNT

The Tannoy Di5a is a high performance, ultra compact, full bandwidth surface mount loudspeaker; optimised for indoor use in professional or residential applications where high quality sonic performance is essential.

Model	100V / Low Z	Sens (1W @1m)	Freq Resp (-3dB)	Freq Range (-10dB)	Dispersion (-6dB)	LF	HF	SPL Peak	Enclosure	Dimesions (hxwxd)	Weight each (kg)
DI5A	Integrated 30W RMS	na	100Hz - 25kHz	90Hz - 30kHz	90 degrees conical	4.5" mineral loaded	ICT aluminium dome	109 dB	HIPS	240 x 155 x 162	2.4
DI5DC / DI5DCT	30 W (T model only) / 120 W 8 Ohms	88dB	90Hz - 50kHz	80Hz - 54kHz	90 degrees conical	4.5" Dual Concentric	19mm titanium dome	112 dB	HIPS	241 x 155 x 162	2.7
DI6DC / DI6DCT	60 W (T model only) / 180 W 8 Ohms	89dB	75Hz - 30kHz	55Hz - 35kHz	90 degrees conical	6.5" Dual Concentric	25mm (1") titanium dome	115 dB	HIPS	357 x 230 x 223	5.5
DI8DC / DI8DCT	60 W (T model only) / 180 W 8 Ohms	91dB	65Hz - 30kHz	53Hz - 35kHz	90 degrees conical	8" Dual Concentric	25mm (1") titanium dome	117 dB	HIPS	404 x 260 x 260	7

Speakers

Cabinet

Tannoy VX SERIES

Passive Sound Reinforcement Loudspeaker Range

Conceived, engineered and built with precision in the United Kingdom, the VX Series represents the latest evolution of Tannoy's core philosophies in professional loudspeaker design. There are 10 passive models in the range, combining next-generation Dual Concentric™ driver technology with smart, ergonomic, portable and install-friendly cabinet designs.

- Full range passive installation / transportable loudspeaker
- Latest generation of Tannoy's acclaimed Dual Concentric driver
- Range now includes versatile dual driver models
- Innovative rotatable Q-Centric Waveguide
- Redesigned ergonomic enclosures
- Premium acoustic performance
- Engineered and handcrafted in the UK
- Weatherised versions available on special order

Model	Power handling	Sensitivity	Freq Resp (-3dB)	Freq Range (-10dB)	Dispersion (-6dB)	Driver	SPL Peak	Enclosure	Dimesions (hxwxd)
VX5.2	260 W 8 Ohms	90dB	87 Hz - 35 kHz	65 Hz - 45 kHz	120 x 90	1 x 5" Dual Concentric™ and 1 x 5" bass driver	117 dB	6.7 litre birch plywood	333 x 180 x 200
VX6	200 W 8 Ohms	91dB	80 Hz - 45 kHz	65 Hz - 45 kHz	90 degrees conical	"6"" Dual Concentric"	116 dB	9.2 litre birch plywood	333 x 225 x 215
VX8	260 W 8 Ohms	92dB	85 Hz - 35 kHz	62 Hz - 45 kHz	90 degrees conical	"8"" Dual Concentric"	119 dB	16.3 litre,15 mm birch plywood	388 x 280 x 275
VX8.2	400 W 8 Ohms	93dB	80 Hz - 35 kHz	60 Hz - 45 kHz	90 degrees conical	1 x 8" Dual Concentric™ and 1 x 8" bass driver	122 dB	25.3 litre, 15 mm birch plywood	590 x 280 x 275
VX12	400 W 8 Ohms	97dB	70 Hz - 25 kHz	55 Hz - 38 kHz	90 degrees conical	12" Dual Concentric	126 dB	36.4 litre, 18 mm birch plywood	490 x 370 x 380
VX12Q	700 W 8 Ohms	97dB	80 Hz - 25 kHz	60 Hz - 30 kHz	75 x 40	12" PowerDual™	130 dB	36.4 litre, 18 mm birch plywood	491 x 370 x 380
VX12.2	1000 W 8 Ohms	99dB	70 Hz - 25 kHz	55 Hz - 38 kHz	75 x 40	1 x 12" PowerDual™ and 1 x 12" bass driver	132 dB	57 litre, 18 mm birch plywood	780 x 370 x 380
VX15Q	800 W 8 Ohms	99dB	70 Hz - 25 kHz	58 Hz - 30 kHz	75 x 40	15" PowerDual™	132 dB	54.9 litre, 18 mm birch plywood	590 x 450 x 420

Speakers

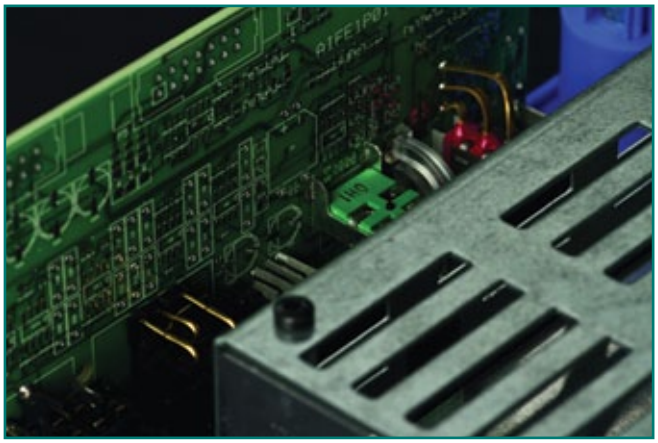
Cabinet

Tannoy VXP SERIES

LAB.GRUPPEN POWERED SOUND REINFORCEMENT LOUDSPEAKERS

VXP Series combines the class-leading performance of the passive VX Series with Lab.gruppen's latest green star rated Integrated IntelliDrive Energy Efficient Amplifier module, bringing ultra reliable and perfectly matched power to the equation for audible superiority in a self-powered box.

- Full range powered installation / transportable loudspeaker
- Integrated Lab.gruppen IDEEA amplifier module
- Latest generation of Tannoy's acclaimed Dual Concentric driver
- Range now includes versatile dual driver models
- Innovative rotatable Q-Centric Waveguide
- Redesigned ergonomic enclosures
- Premium acoustic performance
- Engineered and handcrafted in the UK
- Weatherised versions available on special order



Model	Freq Resp (-3dB)	Freq Range (-10dB)	Dispersion (-6dB)	Driver	SPL Peak	Amplifier type	Enclosure	Dimesions (hxwxd)
VXP6	85Hz - 35kHz	75Hz – 30kHz	90 degrees conical	6" Dual Concentric	116 dB	Integrated Lab gruppen IDEEA	9.2 litre birch plywood	333 x 225 x 215
VXP8	85Hz - 22kHz	62Hz - 30kHz	90 degrees conical	8" Dual Concentric	119 dB	Integrated Lab gruppen IDEEA	16.3 litre,15 mm birch plywood	388 x 280 x 275
VXP8.2	85Hz - 22kHz	62Hz - 30kHz	90 degrees conical	1 x 8" Dual Concentric™ and 1 x 8" bass driver	122 dB	Integrated Lab gruppen IDEEA	25.3 litre, 15 mm birch plywood	590 x 280 x 275
VXP12	70Hz - 25kHz	55Hz - 38kHz	90 degrees conical	12" Dual Concentric	126 dB	Integrated Lab gruppen IDEEA	36.4 litre, 18 mm birch plywood	490 x 370 x 380
VXP12Q	80Hz - 25kHz	60Hz - 30kHz	75 x 40	12" PowerDual™	130 dB	Integrated Lab gruppen IDEEA	36.4 litre, 18 mm birch plywood	490 x 370 x 380
VXP12.2	80Hz - 25kHz	60Hz - 30kHz	75 x 40	1 x 12" PowerDual™ and 1 x 12" bass driver	132 dB	Integrated Lab gruppen IDEEA	57 litre, 18 mm birch plywood	780 x 370 x 380
VXP15Q	70Hz - 25kHz	58Hz - 30kHz	75 x 40	15" PowerDual™	132 dB	Integrated Lab gruppen IDEEA	54.9 litre, 18 mm birch plywood	590 x 450 x 420

Speakers

Cabinet

Tannoy VQ SERIES

PASSIVE SOUND REINFORCEMENT SPEAKERS

Industry leading pattern control and sensitivity are just the tip of the iceberg with VQ. Hifi sound at concert volumes is the real story. These systems just need to be heard to be believed. Infinitely modular and powerful, these audiophile PA building blocks can be scaled to offer precise sound coverage of virtually any venue. Extremely cost effective, especially when compared to a line array solution, VQ is a designer's dream....ask us for a demo.

- High definition and clarity at high SPL's
- Class leading pattern control
- Choose from a wide range of dispersion patterns
- Build modular arrays to suit any venue layout
- Significantly more cost effective than a line array solution
- Ultra low distortion figures
- Engineered and handcrafted in the UK
- Weatherised versions available on special order

VQ60

VQ60

VQ85DF

VQ95MH

VQMB

Model	Sens LF (1W @1m)	Sens M/HF	Freq Range (-10dB)	Dispersion (-6dB)	LF	HF	SPL Peak	Enclosure	Dimesions (HxWxD)	Weight each (kg)
VQ60	105dB	115dB	90Hz - 27kHz	60 degrees conical	2 x 12"	Dual Conentric Comp Driver	144 dB	18mm birch ply	925 x 694 x 515	77
VQ100	105dB	110dB	90Hz - 27kHz	100 degrees conical	2 x 12"	Dual Conentric Comp Driver	140 dB	18mm birch ply	926 x 694 x 515	78
VQ85DF *	na	110dB	350Hz - 27kHz	80 x 50	na	Dual Conentric Comp Driver	139 dB	18mm birch ply	500 x 694 x 515	28
VQ95MH *	na	111dB	350Hz - 27kHz	90 x 50	na	Dual Conentric Comp Driver	140 dB	18mm birch ply	510 x 694 x515	35
VQMB	105dB	na	90Hz - 600Hz	na	2 x 12"	na	141 dB	18mm birch ply	433 x 694 x 515	37
VS15 DR	100dB	na	38Hz - 4500Hz	na	15" Bass	na	136 dB	18mm birch ply	510 x 694 x 515	33
* Also available in 60 x 40 and 40 x 40 patterns										
Active versions of all VQ models are also available										

Speakers

Cabinet

Tannoy VQ LIVE

Active, Dsp And Road-Ready Live Sound Reinforcement

VQ LIVE offers significant and tangible benefits over many existing live sound systems: sonic superiority, fewer boxes required, lower costs and full VNET implementation (allowing system setup and ongoing venue network control). VQ LIVE has the potential to be a true line array killer!

VQ NET 60 LIVE is a 60 degree, full range self powered system with 'easy-lock' wheel-board ('dolly') for easy transit on/off site as well as refined ergonomic handle grips. The cabinet design allows for side-by-side rigging and flying with the dedicated hardware (optional). Each VQ Net LIVE 60 also comes with protective covers, LINE-X™ protective coating and water treated transducers, making it ideal for use in outdoor gigs.

The VQNETLIVE218 is a direct radiating dual 18" subwoofer cabinet designed to partner Tannoy's VQ LIVE full range touring loudspeakers, the VNET 218DR LIVE is perfect for applications where increased headroom is required for high definition sound reinforcement at low and ultra low frequencies.

Tannoy Subs

VS SUBWOOFERS

Passive subwoofer enclosures designed to partner V / VX and VQ series, these high efficiency, high power handling, passive subwoofer enclosures deliver deep, powerful bass and high sound pressure levels at low and ultra low frequencies.

POWER VS SUBS

Active subwoofer enclosures designed to extend the low frequency range of any system, this series of high powered subwoofers feature Class D amplifiers integrated within the enclosure, especially suited to extend the low frequency response of Tannoy's VXP series loudspeakers and increase system headroom

VNET SUBWOOFERS

These high performance active network enabled subwoofer enclosures incorporate a DSP section in conjunction with efficient switched mode power supply Class D power modules; these subwoofer enclosures can be networked with QFlex arrays or VNET enclosures to create a powerful extended bandwidth musical system.

VS218DR

VS15HL

VS10BP

Model	Power Handling	Frequency Response (-3dB)	Frequency Range (-10dB)	Sensitivity (1W @1m)	LF Driver	SPL Peak	Enclosure	Dimesions (hxwxd)	Weight each (kg)
VS10 BP	400 W 8 Ohms	39Hz - 110Hz	35Hz - 130Hz	95dB	1 x 10" high excursion bass driver	124 dB	50 litres bandpass 15mm MDF	355 x 385 x 590	17.5
VS15 BP	600 W 8 Ohms	47Hz - 160Hz	37Hz - 200Hz	99dB	1 x 15" high excursion bass driver	130 dB	100 litre Bandpass, 15mm birch plywood	665 x 440 x 440	27
VS15 HL	800 W 8 Ohms	60Hz - 300Hz	55Hz - 400Hz	104dB	1 x 15" high excursion bass driver	136 dB	170 litres 18mm birch plywood	578 x 555 x 650	40
VS18 DR	1200 W 8 Ohms	29Hz - 1kHz	24Hz - 1.5kHz	102dB	1 x 18" high excursion bass driver	136 dB	202 litres 18mm birch plywood	710 x 652 x 555	50
VS215 HL	2 x 2000 W 8 Ohms	48Hz - 350Hz	40Hz - 450Hz	109dB	2 x 15" high excursion bass driver	148 dB	500 litres, 18mm birch plywood	700 x 1050 x 850	107
VS218 DR	2 x 2000 W 8 Ohms	31Hz - 600Hz	24Hz - 1.5kHz	106dB	2 x 18" high excursion bass driver	145 dB	500 litres, 18mm birch plywood	700 x 1050 x 850	105
Active versions of all subwoofers are also available									

Speakers

Column/Array

TOA HX5B/W Compact Line Array

- Variable dispersion speaker with four adjustable modules
- Each set of four modules can be set at 15, 30, 45 or 60 degrees dispersion
- Ideal for multipurpose school halls, houses of worship, function centres, etc
- Multiple HX5's can be joined together for larger installations
- Optional FB120 subwoofer can be used if required
- Wide range of mounting hardware including the MT200 200 watt 100 volt line transformer
- Free EASE Focus aiming software available
- Weather resistant (WP) version available

MT200

TOA HX5 Mounting Accessories	
HYPF1 (B, W or WP)	Rigging Frame - for up to four HX5's and one FB120 Subwoofer
HYCW1 (B, W or WP)	Ceiling Mount Bracket
HYCN1 (B, W or WP)	Extension Bracket - for Joining up to two HX5's
HYST1	Speaker Stand Adaptor - Mounts on a 32mm Pole Mount
HYWM1 (B, W or WP)	Wall Mounting Bracket - up to 20 deg. Vertical Tilt
HYWM2 (B, W or WP)	Wall Mounting Bracket - Allows Flush Mounting of Cabinet to Wall or Ceiling
MT200	200 watt 100 volt Line Matching Transformer
* B = Black version, W = White version, WP = Weather Resistant version	

	Enclosure	Impedance	Power Handling	Sens (1W/1M)	Frequency Response	Dispersion Angle	Drivers (low/ high)	Dimensions (mm)	IP Rating	Weight (kg)
HX5(B/W)	Bass Reflex	8 ohm	600 W (cont. program)	96dB (60° mode) 97dB (45° mode) 98dB (30° mode) 99dB (15° mode)	70 Hz– 20,000Hz (60° mode) 75 Hz – 20,000Hz (45° mode) 80Hz – 20,000Hz (30° mode) 85Hz – 20,000Hz (15° mode)	15, 30, 45, 60 deg x 100 deg	5 x 120 mm/12 x dome tweeters	408 (W) x 546 (H) ×342 (D)		16
HX5(BWP/ WWP)	Sealed	8 ohm	600 W (cont. program)	96dB (60° mode) 97dB (45° mode) 98dB (30° mode) 99dB (15° mode)	95Hz – 20,000Hz (60° mode) 100 Hz – 20,000Hz (45° mode) 105 Hz – 20,000Hz (30° mode) 110 Hz – 20,000Hz (15° mode)	15, 30, 45, 60 deg x 100 deg	5 x 120 mm/12 x dome tweeters	408 (W) x 546 (H) ×342 (D)	IPX4	16
FB120 (B/W)	Sealed	8 ohm	600 W (cont. program)	96dB	40 Hz - 1,2000 Hz	N/A	1 x 300 mm	408 (W) x 408 (W) x 450 (D)		15
* B = Black version, W = White version, WP = Weather Resistant version										

Speakers

Column/Array

TOA Type H Column Line Array

Column line array available in long or short models either, straight or with a 20 degree bottom curve
Multiple 70mm wide range drivers provide narrow dispersion and constant SPL levels
Bass reflex slim-line design (84mm wide)
Mounting options include wall mount, pan/tilt, flying and pole mount options
Two straight models can be joined for larger rooms
FB120 (B/W) sub-woofer can be used if required.
Free EASE Focus aiming software is also available

SRH2L SRH2S SRH3L SRH3S

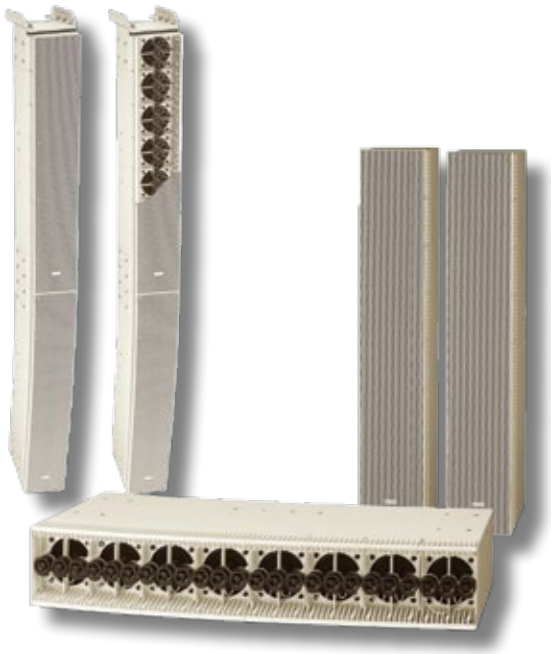
Type H Column Line Array Accessories	
SREP3	Extension Plate for Joining Two Straight Type H Line Arrays
SRWB3	Wall Mounting Bracket for Type H Line Arrays
SRTB3	Wall Tilt Bracket for Type H Line Arrays
SRFB3	Flying Bracket for Type H line Arrays
SRSA3	Stand Mount Adaptor for Type H Line Arrays
MTS0301	30 Watt 100 Volt Line Transformer for Type H Line Arrays

MTS0301

	Colour	Enclosure	Impedance	Power Handling	Sensitivity (1W/1M)	Frequency Response	Dispersion Angle	Drivers	Dimensions (mm)	Weight (kg)
SRH2L	White	Bass Reflex	8 ohm	180 W (cont. program)	92 dB	80 Hz - 18 kHz	90 deg. horiz. 0 deg. vert.	9 x 70 mm	84 (W) × 668.4 (H) × 115 (D	4.4
SRH2S	White	Bass Reflex	8 ohm	180 W (cont. program)	90 dB	90 Hz - 17 kHz	90 deg. horiz. 20 deg. vert.	9 x 70 mm	84 (W) × 663.4 (H) × 115 (D	4.2
SRH3L	White	Bass Reflex	8 ohm	360 W (cont. program)	95 dB	110 Hz - 18 kHz	90 deg. horiz. 0 deg. vert.	16 x 70 mm	84 (W) × 1186 (H) × 115 (D)	7.6
SRH3S	White	Bass Reflex	8 ohm	360 W (cont. program)	92 dB	90 Hz - 17 kHz	90 deg. horiz. 20 deg. vert.	16 x 70 mm	84 (W) × 1177.2 (H) × 157 (D)	7.9

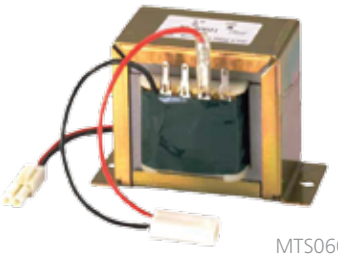
Speakers

Column/Array



TOA Type S Column Line Arrays

- Two-way bass reflex column line array available as either straight or curved design
- Each unit contains 32 speaker elements (eight bass/mid drivers and 24 dome tweeters)
- Multiple units can be joined for larger venues
- Also available in sealed weather resistant version
- Mounting options include wall mount, pan/tilt, flying and pole mount options
- FB120 (B/W) sub-woofer can be used if required.
- Free EASE Focus aiming software is also available



MTS0601

Type S Column Line Array Mounting Accessories	
SREP4	Extension plate - indoor use for Type S Line Array
SRFB4	Flying bracket - indoor use for Type S Line Array
SRWB4	Wall mount bracket - indoor use for Type S Line Array
SREP4WP	Extension plate - outdoor use for Type S Line Array
SRWB4WP	Wall mount bracket - outdoor use for Type S Line Array
SRTB4	Wall tilt bracket - indoor use for Type S Line Array
SRTB4WP	Wall tilt bracket - outdoor use for Type S Line Array
SRSA4	Stand adaptor - indoor use for Type S Line Array
SRFS4	Floor stand - indoor use for Type S Line Array
SRRP4	Protection pad for Type S Line Array
MTS0601	60 watt 100 volt Line matching transformer

	Enclosure	Impedance	Power Handling	Sens (1W/1M)	Frequency Response	Dispersion Angle	Drivers (low/ high)	Dimensions (mm)	IP Rating	Weight (kg)
SRS4L	Bass Reflex	8 ohm	600 W (cont program)	94 dB	70 Hz - 20 kHz	90 deg. Horiz. 0 deg. Vert.	8 x 100 mm/24 x Dome Tweeter	160 (W) × 895 (H) × 255 (D	-	16
SRS4S	Bass Reflex	8 ohm	600 W (cont program)	93 dB	70 Hz - 20 kHz	90 deg. Horiz. 10 deg. Vert.	8 x 100 mm/24 x Dome Tweeter	160 (W) × 892 (H) × 303 (D)	-	16
SRS4LWP	Sealed	8 ohm	600 W (cont program)	94 dB	70 Hz - 20 kHz	90 deg. Horiz. 0 deg. Vert.	8 x 100 mm/24 x Dome Tweeter	160 (W) × 895 (H) × 255 (D	IPX4	16
SRS4SWP	Sealed	8 ohm	600 W (cont program)	93 dB	70 Hz - 20 kHz	90 deg. Horiz. 10 deg. Vert.	8 x 100 mm/24 x Dome Tweeter	160 (W) × 892 (H) × 303 (D)	!PX4	16

Speakers

Column/Array

Tannoy QFLEX

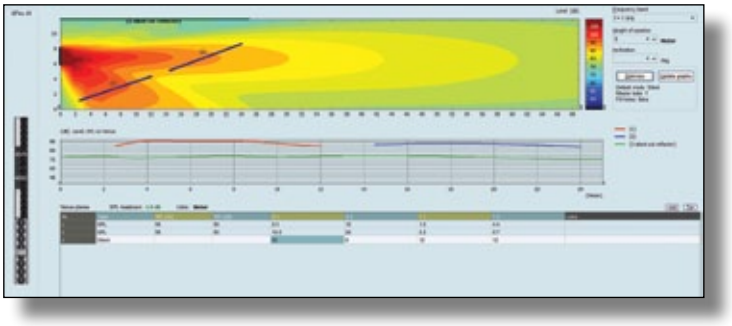
DIGITAL BEAM-STEERING ARRAY LOUDSPEAKERS

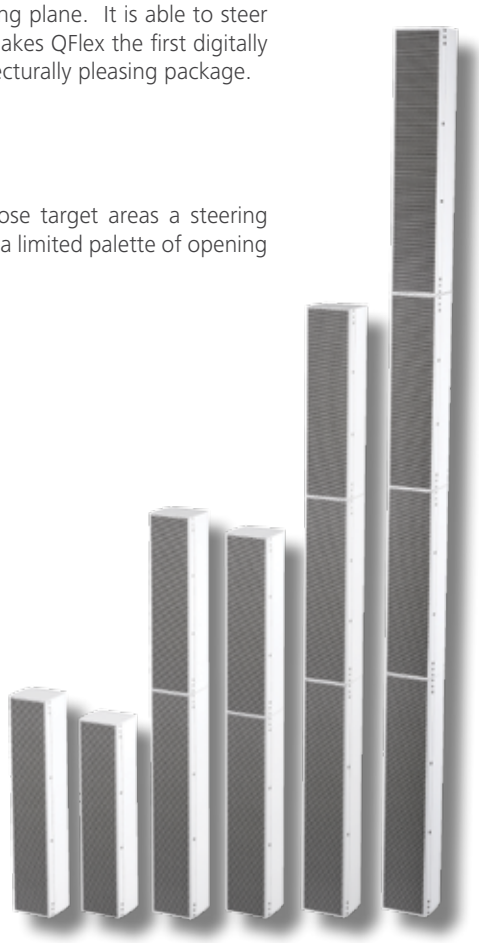
QFlex is an award winning range of digitally steerable, multi-channel, array speaker systems for the professional installation market. With state of the art algorithms and dense physical spacing of transducers, QFlex is the first product of its kind to realise full range beam steering capabilities, delivering unrivalled broadband performance for both vocal and music applications in acoustically challenging spaces such as houses of worship, transportation hubs, convention centres, conference facilities, large lecture theatres, shopping malls, performing arts centres, and museums.

QFlex is revolutionary in that it is able to achieve even coverage and SPL across the listening plane. It is able to steer the beam away from surfaces that cause reflections to frequencies beyond 12 kHz. This makes QFlex the first digitally steerable array to maintain music quality over the desired area of coverage, all in an architecturally pleasing package.

Can be ordered in custom colours by specifying RAL number.
Also available in IP53 weatherised versions.

The intuitive BeamEngine GUI allows the designer to specify target areas. Based on those target areas a steering algorithm is generated and tailored for the specific area, rather than having to choose from a limited palette of opening and steering angles.





Model	Frequency Range	Horizontal Dispersion	Vertical Dispersion	Aiming Angle Limit	LF Beam Control Limit	Maximum SPL @ 30m*	Typical Application Distance**	Column Height	4" LF drivers	3" LF drivers	1" HF drivers
QFLEX8	110Hz - 4kHz	120 degrees	Variable 10 - 100 degrees	+/- 70degrees	700Hz	92 dB	20m	840mm	8	-	-
QFLEX16	130Hz - 20kHz	120 degrees	Variable 10 - 100 degrees	+/- 70degrees	700Hz	94 dB	25m	744mm	-	8	8
QFLEX24	110Hz - 20kHz	120 degrees	Variable 10 - 100 degrees	+/- 70degrees	400Hz	96 dB	40m	1483mm	8	8	8
QFLEX32	130Hz - 20kHz	120 degrees	Variable 10 - 100 degrees	+/- 70degrees	400Hz	100 dB	50m	1387mm	-	16	16
QFLEX40	110Hz - 20kHz	120 degrees	Variable 10 - 100 degrees	+/- 70degrees	250Hz	100 dB	70m	2127mm	8	16	16
QFLEX48	110Hz - 20kHz	120 degrees	Variable 10 - 100 degrees	+/- 70degrees	200Hz	101 dB	80m	2967mm	16	16	16
* Average SPL (1kHz – 8kHz). Based on a mounting height of 10m and a target area @ 30m and 10m wide.											
Maximum attainable SPL is dependant on the dimension of the target area(s). Exact figures can be derived in the BeamEngine programme.											
** Based on the above venue criteria achieving 95dB SPL at the quoted distance.											

Speakers

Horn Speakers

CS64

CS154

CS304

TOA CS Series Music Horns

Wide-range paging horn for voice paging, background music and tone signalling distribution
Weather-resistant to withstand demanding environmental conditions

- Constant directivity coverage (CS-154/CS-304)
- High Sensitivity: up to 98 dB (1 W/1 m)
- Moisture-resistant 120 mm speaker component (4.72")
- Built-in 100 V transformer with screwdriver-adjustable power taps
- Lightweight, sealed enclosure prevents moisture damage
- Cable strain-relief
- Polyurethane resin paint resists the fading effects of ultraviolet light
- CS154 and CS304 IP65 rated
- Wide temperature range: –20°C to +55°C
- Stainless-steel mounting bracket for easy installation and aiming in wall, pole or ceiling-mount applications
- Protective stainless-steel mesh grille prevents speaker damage

	Impedance	Power Handling	Sensitivity (1W/1M)	Freq. Response	Dimensions (mm)	Weight (kg)	IP Rating
CS64	100 volt line	6 W	96dB	130 Hz - 13 kHz	233 (W) x 224 (H) x 208 (D)	1.5	N/A
CS154	100 volt line	15 W	97dB	150 Hz - 15 kHz	366 (W) x 230 (H) x 272 (D)	2.8	65
CS304	100 volt line	30 W	98dB	120 Hz - 15 kHz	366 (W) x 230 (H) x 272 (D)	3.1	65

SC610

SC615

SC630

TOA SC Series Paging Horns

- Aluminium paging horn speakers for voice paging and tone signalling distribution
- High Sensitivity: up to 113 dB (1 W/1 m)
- Usable as a microphone for intercom talk-back applications
- Built-in 100 V transformer ("M" models) with screwdriver-adjustable power tap, 8 ohm models also available
- IEC IP-65 compliant for dust and moisture-resistance
- Wide temperature range: –20°C to +55°C
- Phenolic loudspeaker diaphragm prevents deformation from heat and moisture
- Stainless-steel mounting bracket for easy installation and aiming in wall, pole or ceiling-mount applications

	Impedance	Power Handling	Sensitivity (1W/1M)	Freq. Response	Dimensions (mm)	Weight (kg)	IP Rating
SC610	8 ohm	10 W	110 dB	315 Hz - 12.5 kHz	172 (W) x 161 (H) x 188 (D)	1	65
SC610M	100 volt line	10 W	110 dB	315 Hz - 12.5 kHz	172 (W) x 161 (H) x 188 (D)	1.2	65
SC615	8 ohm	15 W	112 dB	282 Hz - 12.5 kHz	222 (W) x 179 (H) x 234 (D)	1.1	65
SC615M	100 volt line	15 W	112 dB	282 Hz - 12.5 kHz	222 (W) x 179 (H) x 234 (D)	1.3	65
SC630	8 ohm	30 W	113 dB	250 Hz - 10 kHz	285 (W) x 227 (H) x 277 (D)	1.7	65
SC630M	100 volt line	30 W	113 dB	250 Hz - 10 kHz	285 (W) x 227 (H) x 277 (D)	2	65

Speakers

Horn Speakers

TOA TC Series Paging Horns

- Aluminium paging horn speakers for voice paging and tone distribution in larger areas
- High Sensitivity (1W/1M): up to 110 dB (1 W/1 m)
- Built-in 100 V transformer ("M" models) with screwdriver-adjustable power tap, 8 ohm models also available
- IEC IP-65 compliant for dust and moisture-resistance
- Wide temperature range: –20°C to +55°C
- Phenolic loudspeaker diaphragm prevents deformation from heat and moisture.
- Stainless-steel mounting bracket for easy installation and aiming in wall, pole or ceiling-mount applications

TC615M

TC651M

TC631M

	Impedance	Power Handling	Sensitivity (1W/1M) (1 W, 1M)	Freq. Response	Dimensions (mm)	Weight (kg)	IP Rating
TC615	8 ohm	15 W	108 dB	250 Hz - 7 kHz	400 (W) x 376 (D)	3	65
TC615M	100 volt line	15 W	108 dB	250 Hz - 7 kHz	400 (W) x 376 (D)	3.2	65
TC631	8 ohm	30 W	110 dB	200 Hz - 6 kHz	500 (W) x 463 (D)	4.1	65
TC631M	100 volt line	30 W	110 dB	200 Hz - 6 kHz	500 (W) x 463 (D)	4.5	65
TC651M	100 volt line	50 W	111 dB	200 Hz - 6 kHz	400 (W) x 376 (D)	4.0	65

TOA TH Series Horn Flares

- Aluminium flare designed to be used with the TU Series of drivers
- Ideal for paging applications in large areas such as arenas and stadiums
- High Sensitivity (1W/1M): up to 111 dB (1 W/1 m)
- Built-in 100 V transformer ("M" models) with screwdriver-adjustable power tap, 16 ohm models also available
- IEC IP-65 compliant for dust and moisture-resistance
- Wide temperature range: –20°C to +55°C
- Phenolic loudspeaker diaphragm prevents deformation from heat and moisture.

TH650 TH660

	Impedance	Power Handling	Sensitivity (1W/1M)	Freq. Response	Dimensions (mm)	Weight (kg)	IP Rating
TH650	-	-	110dB *	200 Hz - 6 kHz*	500 dia x 394 (D)	2.9	65*
TH660	-	-	110dB *	200 Hz - 6 kHz*	600 dia x 425 (D)	3.6	65*
* When a horn and driver are used together`							

Speakers

Horn Speakers

DH120

DH110

TOA DH110/DH120 Straight Horns

- Long throw straight horn designed for long distance applications
- Available as either a single throat (DH110) or twin throat (DH120) version
- Accepts either one or two TU series drivers

	Impedance	Power Handling	Sensitivity (1W/1M)	Freq. Response	Dimensions (mm)	Weight (kg)
DH110	-	-	110dB *	180 Hz - 6 kHz*	518 dia - 968 (D)*	5.3*
DH120	-	-	110dB *	180 Hz - 6 kHz*	518 dia - 884 (D)*	5.3*
* When used with a TU series driver unit						

TU631

TU631M

TU651

TU651

TOA's TU Series Drivers

- Driver units are designed to be used in combination with TOA's TH-650 or TH-660 round horn flares or DH straight horns.
- Ideal for paging applications in large areas such as arenas and stadiums
- Four models rated at 30 W (TU-630 and TU-630M) and 50 W (TU-650 and TU-650M).
- Built-in 100 V transformer ("M" models) with screwdriver-adjustable power taps, 16 ohm models also available
- IEC IP-65 compliant for dust and moisture-resistance
- Wide temperature range: –20°C to +55°C
- Phenolic loudspeaker diaphragm prevents deformation from heat and moisture.

	Impedance	Power Handling	Sensitivity (1W/1M)	Freq. Response	Dimensions (mm)	Weight (kg)	IP Rating
TU631	16 ohm	30 W	110dB *	200 Hz - 6 kHz*	139 dia x 106 (D)	1.4	65*
TU631M	100 volt line	30 W	110dB *	200 Hz - 6 kHz*	139 dia x 149 (D)	1.9	65*
TU651	16 ohm	50 W	110dB *	200 Hz - 6 kHz*	139 dia x 106 (D)	2.1	65*
TU651M	100 volt line	50 W	110dB *	200 Hz - 6 kHz*	139 dia x 149 (D)	2.7	65*
* When a horn and driver are used together`							

Portable PA

Portable PA Megaphones

TOA 6 watt Megaphones ER520/520S/520W/1206/1206S/1206W

- Hand grip type
- Available with siren (S) or whistle (W)
- 6 watt rated output power, range up to 250 metres
- ER1200 series rated to IPX5
- "AA" cell batteries

ER520

ER520S

ER520W

ER1206

ER1206S

ER1206W

Model	Colour	Type	Power	Siren	Whistle	Weight (g)	IP Rating	Batteries
ER520	Grey	Handgrip	6 W	N	N	620		8 x "AA"
ER520W	Grey	Handgrip	6 W	N	Y	650		8 x "AA"
ER520S	Red	Handgrip	6 W	Y	N	650		8 x "AA"
ER1206	Grey	Handgrip	6 W	N	N	660	X5	6 x "AA"
ER1206W	Yellow	Handgrip	6 W	N	Y	680	X5	6 x "AA"
ER1206S	Red	Handgrip	6 W	Y	N	680	X5	6 x "AA"

TOA 15 watt Megaphones ER1215/1215S/2215/2215W/3215

- Hand grip or shoulder strap type
- Available with siren (S) or whistle (W)
- 15 watt rated output power, range up to 315 metres
- "C" cell batteries

ER1215

ER1215S

ER2215W

ER3215

Model	Colour	Type	Power	Siren	Whistle	Weight (kg)	Batteries
ER1215	Grey	Handgrip	15 W	N	N	1.1	6 x "C"
ER1215S	Red	Handgrip	15 W	Y	N	1.2	6 x "C"
ER2215	Grey	Shoulder Strap	15 W	N	N	1.1	6 x "C"
ER2215W	Grey	Shoulder Strap	15 W	N	Y	1.2	6 x "C"
ER3215	Grey	Hand grip & Shoulder Strap	15 W	N	N	1.15	6 x "C"

Portable PA

Portable PA Megaphones

ER2230W

ER2930W

TOA 30 watt Megaphones ER2230W/2930W

- Shoulder strap type
- Built in whistle tone
- 30 watt rated output power, range up to 800 metres
- Auxiliary line level and mic inputs
- ER2930W accepts WTU4800 for wireless applications
- "D" cell batteries or 12 VDC power supply

Model	Colour	Type	Power	Whistle	UHF Capable	Aux Line Input	Mic Input	Weight (kg)	Power Supply
ER2230W	Grey	Shoulder Strap	30 W	Y	N	1	1	3.6	10 x "D" or 12 VDC
ER2930W	Grey	Shoulder Strap	30 W	Y	Y	1	1	3.8	10 x "D" or 12 VDC

TOA D2000 Digital mixer system

Portable PA

Powered Mixers

Since 1968, with the introduction of the PA-3 system, Peavey has paved the way for portable sound. Following this tradition, the latest XR series powered mixers exhibit clever and unique features in powerful yet lightweight, easy to use packages.

Peavey XR1220P and XR1212P

- Dual 600W lightweight Class D power amps
- 5 operation modes
- Auto room EQ
- Feedback Ferret®
- 4-band EQ on input channels
- Digital effects
- Dual 9-band graphic EQ
- Two monitor sends
- Dedicated effect return fader
- 20 XLR mic channels (XR1220P), 12 XLR mic channels (XR1212P)
- 5 year warranty

Also available:
PVR2 RTA reference mic, used for automated room analysis.

XR1220P

XR1212P

Peavey XR8300 and XR8600D

- 2 x 600W (XR8600D) or 2 x 300W (XR8300) RMS into 4 Ohms
- 8 x low noise XLR inputs
- 2 stereo inputs
- 2 x 7-band graphic equalizers with Feedback Locating System (FLS)
- Selectable 48V phantom power
- Digital effects
- DDT speaker protection
- Rugged moulded case with handle
- 5 year warranty

XR8300

XR8600D

	XLR mic inputs	Power amps	Format	Rack mount	Other features
XR1220P	20	2 x 600W digital	console	no	flexible amp configuration (main or monitor); multiple EQ options
XR1212P	12	2 x 600W digital	console	yes	flexible amp configuration (main or monitor); multiple EQ options
XR8300	8	2 x 300W analogue	'brick'	no	flexible amp configuration (main or monitor)
XR8600D	8	2 x 600W digital	'brick'	no	flexible amp configuration (main or monitor)

Portable PA

All-in-one

Peavey Audio Performer Pack

A single box solution for portable audio needs. Ideal for schools, function centres, etc. Contains:

- Two PVi10 10" speaker enclosures
- Two PVi100 dynamic cardioid microphones
- Two speaker stands
- PVi 4B powered mixer
- Mic cables, mic clips and speaker cables

Peavey Escort 3000

The Escort's integrated design allows for ease of transportation, while its user-friendly controls offer ease of operation, making it the perfect choice for schools, churches, civic organisations and small musical groups.

The Escort features dual two-way speakers driven by a five-channel, 300 Watt stereo powered mixer, making it ideal for both vocal and musical applications. The system also includes two folding speaker stands, stand for base unit, a microphone and all necessary connecting cables. Among many professional features, the mixer includes 60mm faders, a five-band graphic equalizer with FLS® (Feedback Locating System) and digital reverb. The carrying case provides storage for all the system components with ample room for additional mics and cables. This clever design incorporates the speakers into the package, allowing the unit to be easily carried or pulled along on its luggage-style wheels.

PR10 PR12 PR15

PR12D PR15D

Peavey PR Series

Available in passive and active (powered) versions, the PR Series delivers superior sound quality by utilising advanced materials, like the light weight, roadworthy, moulded polypropylene exteriors.

The PR family features black powder-coated steel grilles that provide driver protection and a professional appearance. These speakers can be used on the floor, be pole mounted or flown via top and bottom flying inserts. In addition, the unique Peavey Versamount facilitates wall and ceiling mounting: see photo.

Five year warranty.

	Type	Power handling (program)	Configuration	Input	Dimensions (hxwxd)
PR10	passive	400	1 x 10" plus RX14 titanium compression driver	6.35mm x 2	495mm x 356mm x 333mm; 10.5kg
PR12	passive	400	1 x 12" plus RX14 titanium compression driver	6.35mm x 2	609mm x 463mm x 368mm; 15kg
PR15	passive	400	1 x 15" plus RX14 titanium compression driver	6.35mm x 2	736mm x 558mm x 435mm; 19.1kg
PR12D	active, with digital biamplifier	200W + 70W digital amps	1 x 12" plus RX14 titanium compression driver	XLR/6.35mm combi input plus 6.35mm link input and output	609mm x 463mm x 368mm; 13kg
PR15D	active, with digital biamplifier	200W + 70W digital amps	1 x 15" plus RX14 titanium compression driver	XLR/6.35mm combi input plus 6.35mm link input and output	736mm x 558mm x 435mm; 16.4kg

Conference Systems

AKG CS5 Conference System

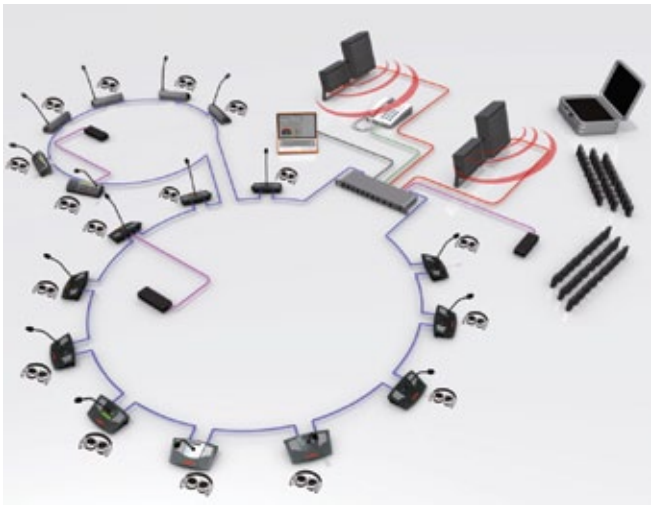
Communication is a matter of confidence
Confidence is the basis of success in everyday life. When it comes to conferencing, confidence in the failsafe quality of the audio system is equally important – after all, the audio system must reliably handle incredible amounts of information for delegates, observers, and interpreters every second. Just as any conference begins with a spoken word, designing a conference system at AKG begins with careful research and consulting to find out exactly what your requirements are.
Having specialised in audio for more than sixty years, AKG has accumulated a vast body of expert know-how, so you can be confident that the CS 5 will provide a professional, turnkey solution with the following benefits:

- Dedicated systems for every application custom designed,
- Maximum reliability in terms of day-to-day operation and immunity to listening-in (for debates of sensitive issues),
- Shielded CAT 5/RJ 45 standard wiring,
- Voting function including documentation of results,

With only a few versatile components, the CS 5 ensures maximum flexibility at an outstanding price/performance ratio. And what's best, you will get an easy-to-use complete system that includes both the basic equipment and all the extras.
Another essential feature, particularly in terms of cost, is full expandability. No matter how many microphone stations the system includes, it only needs a single Base Unit to control the entire setup. So if you are required to expand the system at a later date, you can simply add the extra stations and continue using all the existing components.

Although there is a trend toward using wireless equipment in conferencing, AKG decided to play it safe. WiFi conference systems are quick to set up but the risk of radio dropouts or even total failure caused by smart phones with WiFi interfaces is high.
The CS 5 is a sure success for speakers, delegates, financial decision makers, and system designers on more than one level: integrated software control allows operators to focus on the essentials of their job.

It all begins with a word. The AKG CS 5 Conference System gets it across with confidence.



Conference Systems

AKG CS5 Conference System

CS5 BU

- Digital controller for any system size
- Complete with all inputs and outputs needed for complex systems
- Integrated infrared signal modulator
- Independent or computer controlled operation

CS5 DU

- Choice of microphones for every kind of system and room acoustics
- 3 + 1 language channels independently selectable for two users
- Yes/no voting function

CS5 VU

- Choice of microphones for every kind of system and room acoustics
- Display and multifunction soft keys for ease of use
- Up to 63 language channels independently selectable for two users
- 1, 3, 5-way voting/polling function
- Dip-switch selectable president and delegate operating modes

CS5 IU

- Choice of microphones for every kind of system and room acoustics
- Headset interface
- Meets international interpretation equipment standards
- Intuitive, easy-to-use controls

CS55 IRT 1/2

- Digital data transmission using PPM modulation
- Fully automatic operation
- Unlimited daisy-chaining
- Designed for use in large rooms
- The CS 5 IRT 1 and IRT 2 differ only in size and radiated power, and can be use in any desired combination

CS5 IRR7

- Digital data transmission using PPM modulation
- Rugged construction
- Easy, intuitive handling
- Standard NiMH rechargeable battery
- 12 hours battery life
- Auto shutoff feature

CS5 CU50

- A sturdy flightcase/charger for up to 50 CS 5 IRR 7 infrared receivers
- Intelligent charging circuitry
- Quick charging and trickle charging modes

Conference Systems

TOA TS770 System

TOA's TS-770 Cabled Conference System is ideal for conferences and meetings in government, corporate, educational and hotel applications. The system provides communications for conferences and boardrooms. The easy to use TS-770 Series is comprised of the TS-770 Central Unit supporting up to 70 chairman/delegate stations. This is expandable to 210 if desired. The TS775 allows connection to a PC or Telephone for participation of external delegates. The number of permitted open microphones can be selected at the central unit up to a maximum of six. An "ALL ON" setting allows all microphones to open simultaneously for recording or broadcast of a meeting or conference.

TOA TS770 Central Unit

- Supports up to 70 TS-771 Chairperson and TS-772 Delegate Stations
- Aux, Line and Mic inputs
- Up to six simultaneous speakers
- All mics open record function
- PA/Record output
- System Test function

TS771 Chairperson Unit

- Uses (Optional) TS-773 or TS-774 Gooseneck Microphone
- 3.5mm Headphone and Record Output with volume control
- Priority override control
- Built-in speaker, push to talk control
- Contact closure output when microphone is active
- Can be used for camera call-up, tally or other devices

TS772 Delegate Unit

- Uses (Optional) TS-773 or TS-774 Gooseneck Microphone
- 3.5mm Headphone and Record Output with volume control
- Built-in speaker, push to talk control
- Contact closure output when microphone is active
- Can be used for camera call-up, tally or other devices

TS773/TS774 Microphones

- Unidirectional - Electret condenser microphone
- Red LED ring light active speech indicator
- TS773 – 368mm, TS774 – 518mm
- Use with TS-771 or TS-772

TS775 Remote Delegate Station

- Audio Input/Output for local PC connection to a remote PC participant
- PC to PC call connection over network uses third party software/ service not provided by TOA
- RJ-11 connection provided to connect with the handset connector on a telephone base unit for calls connected to a remote telephone participant
- Speech Mode (Selectable)
- Auto: VOX (Voice Activated Switch)
- Manual: Talk Key On-Off switching function
- Contact closure output
- When microphone is active
- Can be used for camera call-up, tally or other devices

YR7702M/YR77010M

- Station extension cord
- 2 metres (YR7702M) and 10 metres (YR77010M)

Conference Systems

TOA TS800/TS900 SYSTEM

TOA's TS Series Infrared Conference Systems are ideal for conferences and meetings in corporate, educational and hotel applications. The system provides secure wireless communications between delegates for conferences and boardrooms and the cordless operation eliminates all connecting cables typical of more traditional systems. The TS900 system supports up to 96 Chairperson's/delegate stations, three level voting and simultaneous translation audio channel. An RS232 port allows interfacing with third party control systems. The TS-800 system supports up to 64 chairperson/delegate stations. All stations are powered with a rechargeable lithium-ion battery or AC power supply and have a headphone outlet for translation channels.

TS800CE Central Unit

- Supports up to 64 TS801 Chairperson and TS802 Delegate Stations
- Four ports for infrared transceivers (maximum 16 using YW1024Y/YW1022Y)
- Aux and Mic inputs, PA/Record output
- Headphone output
- First-in-First-Out and Last-In-First-Out priority modes
- Up to four simultaneous speakers
- Optional rack-mount kit, model MB-TS900 (4U)

TS801 Chairperson Unit

- Priority button for automatic over-ride of delegate stations
- Built-in speaker automatically turns off when microphone is activated
- Adjustable monitor volume, headphone output
- Microphone options: - TS903 or TS904 (see below)
- Power options:
- BP900CE rechargeable lithium-ion battery (requires BC-900UL charger)
- 7.2 volt AC power adapter

TS802 Delegate Unit

- Built-in speaker automatically turns off when microphone is activated
- Adjustable monitor volume, headphone output
- Microphone options: - TS903 or TS904 (see below)
- Power options:
- BP900CE rechargeable lithium-ion battery (requires BC-900UL charger)
- 7.2 volt AC power adapter

TS900CE Central Unit

- Supports up to 96 TS-901 Chairperson and TS-902 Delegate Stations
- Four ports for infrared transceivers (maximum 16 using YW1024Y/YW1022Y)
- Vote results display
- Second language channel for simultaneous interpretation
- Three Aux and two Mic inputs, PA/Record output
- Headphone output
- First-in-First-Out and Last-In-First-Out priority modes
- Up to four simultaneous speakers
- Optional rack-mount kit, model MB-TS900 (4U)

Conference Systems

TOA TS800/TS900 SYSTEM

TS901 Chairperson Unit

- Voting function
- Priority button for automatic over-ride of delegate stations
- Built-in speaker automatically turns off when microphone is activated
- Adjustable monitor volume, headphone output
- Microphone options: - TS903 or TS904 (see below)

Power options:

- BP900CE rechargeable lithium-ion battery (requires BC-900UL charger)
- 7.2 volt AC power adapter

TS902 Delegate Unit

- Voting function
- Built-in speaker automatically turns off when microphone is activated
- Adjustable monitor volume, headphone output
- Microphone options: - TS903 or TS904 (see below)
- Power options:
- BP900CE rechargeable lithium-ion battery (requires BC-900UL charger)
- 7.2 volt AC power adapter

TS903/TS04 Microphones

- For TS801, TS802, TS901, TS902
- Electret condenser microphone element
- Red LED "in-use" indicator also flashes to show low battery status
- TS903 – 368mm, TS904 – 518mm

TS905/TS907 Transmitter Receiver

- Installs on ceiling or wall
- TS905: Up to 5 metre ceiling height
- TS907: 5 to 7 metre ceiling height
- Connect up to sixteen TS905s or twelve TS907s using optional Antenna Distributors, model YW1022Y (1x2) and YW1024Y (1x4)
- 75 ohm coaxial cable with BNC connectors required

Conference Systems

TOA TS800/TS900 SYSTEM

YW1022Y Distributor

- One to two way splitter for TS905/TS907 transmitter receivers
- Power passing type
- 75 ohm input/output impedance
- 75 ohm coaxial cable with BNC connectors required

YW1024Y Distributor

- One to four way splitter for TS905/TS907 transmitter receivers
- Power passing type
- 75 ohm input/output impedance
- 75 ohm coaxial cable with BNC connectors required

BC900CE Battery Charger

- Charges up to eight BP900CE batteries
- Charging time approx 5 hours

BP900CE Rechargeable Battery

- Lithium-ion battery for TS800 or TS900 series stations
- 7.4 V DC nominal voltage 1700 mAh

Network Systems

IP Intercom - TOA N8000 IP Intercom

The newly expanded N-8000 Series IP Network Intercom offers flexible communications for up to 3,072 stations on existing corporate local and wide area data networks. Built on TOA's proven NX100 network audio technology, the new IP Intercom products occupy minimal network bandwidth (130 kbps maximum) for station-to-station calls and can be controlled and monitored through software or web browser. Programmable system functions include 192 paging zones, time-based call forwarding and scan monitoring.

The backbone of the new system is the range of N8000 system exchanges which support 16 stations and occupy only one rack space. Features include a 10/100BaseT port for connection to standard network hardware and, depending on model up to two paging audio outputs.

Larger systems can be easily configured with up to 192 exchanges and 3,072 stations.

A variety of stations are available including two and four wire single button models with weather and vandal resistant options as well as conventional handset models with or without and LCD display. Ethernet stations include the N8500MS and N8510MS IP Multi-function Master Stations, which have a built-in Ethernet connection for direct network connection. Also available is the N8540DS IP Door Station which, also connecting directly to the network, enables a system of up to 192 stations to be realised over a network without the need for an Exchange.

TOA N8000EX Exchange

- Sixteen station capacity
- Stations connect to exchange via two-wire twisted pair
- Provides 48 VDC to each station
- Speech links: 4 internal / 8 external
- Two audio and two relay outputs

TOA N8010EX Economy Exchange

- Sixteen station capacity
- Stations connect to exchange via two-wire twisted pair
- Provides 48 VDC to each station
- Speech links: 1 internal / 2 external

TOA N8000MI Multi Interface Unit

- Tie-line interface for connection to a PABX
- Sixteen contact closure I/O
- Two audio input and output channels

TOA N8000AF Audio Interface Unit

- One MIC/LINE audio input, one audio line output
- Eight contact inputs
- Time Synchronization input
- Built-in timer and chime

Network Systems

IP Intercom - TOA N8000 IP Intercom

TOA N8000DI Direct Select I/O Unit

- 32 contact closure I/O
- Provides control interface to CCTV, door access and other external systems.
- Events may be activated by contact closures or master station dialling commands.

TOA N8000CO Central Office Unit

- Analogue central office line circuit allowing the stations to make and receive calls to and from a telephone line

TOA N8000AL Telephone Interface Unit

- Single telephone line allowing an analogue telephone to be connected
- Allows any analogue telephone to function as a master station.

TOA N8000RS Two Wire Sub-Station Interface

- Up to 16 substations connectable using two-core shielded cable
- Speech links: 2

TOA N8010RS Two Wire Sub-Station Interface

- Up to 16 substations connectable using two-core shielded cable
- Speech links: 1

TOA N8400RS Four Wire Sub-Station Interface

- Up to 16 substations connectable using 2 sets of twisted pair cables
- Speech links: 1
  1 Occupies one network node (192 max)
  2 Occupies one network node (191 max - at least one node must be a master station or N-8000/8010EX exchange)

TOA N8500MS/N8510MS IP Master Station

- Handset or hands-free duplex communication
- PoE compatible or optional power supply
- Alphanumeric LCD display (N8500MS only)
- Eight programmable speed dial keys (N8500MS only)
- External speaker terminal (N8500MS only)

TOA N8000MS/N8010MS Master Station

- Handset or hands-free duplex communication
- Two-wire connection to N-8000EX or N-8010EX Exchange
- Alphanumeric LCD display (N8000MS only)
- Eight user-programmable speed dial keys (N8000MS only)
- External speaker terminal (N8000MS only)

TOA N8011MS Master Station

- Hands-free duplex communication
- Two-wire connection to N-8000EX or N-8010EX Exchange
- Headset terminal
- External speaker terminal

Network Systems

IP Intercom - TOA N8000 IP Intercom

TOA N8020MS Master Station

- Heavy duty dustproof and waterproof construction (IP54 rating)
- Two-wire connection to N-8000EX or N-8010EX Exchange
- Handset or hands-free duplex communication
- External speaker terminal
- Control output

TOA N8031MS Master Station

- Two-wire connection to N-8000EX or N-8010EX Exchange
- Hands-free duplex communication
- External dial inputs (7, 8, 9 and C keys)

TOA N8540DS Door Station 1

- Hands-free duplex communication
- PoE compatible or optional power supply
- Hands-free duplex communication
- Control output (open collector)
- IP54 rated

TOA N8050DS Door Station

- Two-wire connection to N-8000EX or N-8010EX Exchange
- Hands-free duplex communication
- Control output (open collector)
- IP54 rated

TOA RS450/RS460 Sub-Station

- Provides half-duplex communication
- Heavy-duty brushed stainless steel faceplate
- Vandal resistant call button (RS460 only)
- Connects to N-8400RS using two pairs of twisted pair cable

TOA RS470/RS480 Sub-Station

- Provides half-duplex communication
- IP54 rated (RS480 only)
- Heavy-duty brushed stainless steel faceplate
- Vandal resistant call button (red on RS480)
- Control output (open collector) (RS480 only)
- Connects to N-8400RS using two pairs of twisted pair cable

TOA RS140 Switch Panel

- Call button and privacy button
- Talk back conversation
- Handset conversation available by using with RS-141
- Hands-free conversation with master station by connecting a high impedance speaker
- Connects to N-8000RS/8010RS using two-core shielded cable
- 1 Occupies one network node (192 max)
- 2 Occupies one network node (191 max - at least one node must be a master station or N-8000/8010EX exchange)

Network Systems

Audio Transmission

TOA NX100 Network Audio Adaptor

The TOA NX-100 is a reliable and easy to use solution for transporting mic or line-level audio signals over IP-based local and wide area networks (LAN/WAN), as well as the Internet. Applications include wide area paging, background music or messaging audio distribution for airports, convention centres, railway stations and transit systems.

The flagship model NX-100 transports variable bandwidth, bi-directional audio (up to 14 kHz) as well as serial RS-232 and contact closure data. Each half-rack sized unit includes a balanced mic/line input and output and a 10/100BaseT Ethernet jack for connection to standard network hardware. The rear panel includes eight programmable trigger inputs to initiate and terminate audio transmissions, eight programmable open collector control outputs and an RS-232 serial port for data transmission/reception. The NX-100 also has a built-in web server to support browser-based programming, control and monitoring from any network-connected PC.

The new streamlined NX-100S includes all of the same features as the NX-100 minus the RS-232 transport and external 24 VDC capabilities. Enhancements include front panel signal and peak LED's plus phantom power for condenser microphones.

TOA NX100 Network Audio Adaptor

Model	NX100	NX100S
Audio Input	Yes	Yes
Contact Closure	Yes	Yes
RS-232C	Yes	No
Power source	AC or 24 V DC	AC only
Input Signal LED	No	Yes
Input Peak Level LED	No	Yes
Phantom Power	No	Yes
IPv6 Compatible	Yes	No

EXPI-4

EXPI_O-2

EXPO-4

Biamp EXPI - 4 / EXPO - 4 / EXPI / 0-2 / EXPI / EXPO

Biamp's EXPI and EXPO CobraNet Expanders can be used independently of the Audia platform to transmit audio across suitable Ethernet/IP networks.
More details on page 73.

Cables

Bulk Cables

ProAV CI162

- 2-core speaker cable with overall sheath
- 16AWG per core
- 65 strands for flexibility
- PVC sheath and dielectric
- UL/CL3 rated for in-wall or in-ceiling use
- Metre marked (reverse metres)
- Supplied in 152m pull-through box

ProAV CI164

- 4-core speaker cable with overall sheath
- 16AWG per core
- 65 strands for flexibility
- PVC sheath and dielectric
- UL/CL3 rated for in-wall or in-ceiling use
- Metre marked (reverse metres)
- Supplied in 152m pull-through box

ProAV CI182

- 2-core speaker cable with overall sheath
- 18AWG per core
- PVC sheath and dielectric
- UL/CL3 rated for in-wall or in-ceiling use
- Metre marked (reverse metres)
- Supplied in 305m pull-through box

ProAV MC128

- Professional, shielded mic cable (two cores)
- 2 x 0.35sqmm conductors, 11 strands each
- PVC outer sheath and dielectric
- Metre marked (reverse metres)
- Supplied in 152m pull-through box

ProAV Cat5e

- High speed Cat5e data cable (100MHz)
- 24AWG bare copper conductors
- Metre marked on outer jacket
- Supplied in 305m pull-through box
- Available in blue or grey

Cables

Bulk Cables

ProAV Cat6

- High speed Cat6 data cable (350MHz)
- 23AWG bare copper conductors
- Inner spacer to maintain formation and minimise crosstalk
- Metre marked on outer jacket
- Supplied in 305m pull-through box
- Available in blue

ILC100M

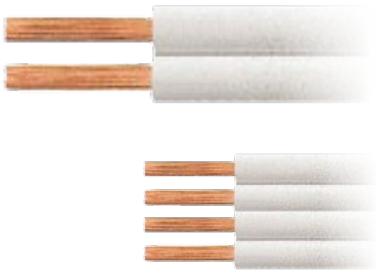
- Flat copper tape for under-carpet induction loop (hearing aid) installation
- Overall size 15mm x 0.45mm
- 2.5 sqmm copper passes high loop currents
- Rugged PET insulation
- Supplied on 100m spool, metre marked and printed with ‘do not cut’ warning

RG6 Quad Shield

- Quality RG6 co-axial cable with quad shield
- Combats the heaviest outside interference
- Supplied in 305m pull-through box

ProAV Soprano / Soprano Biwire

- hHeavy duty 14AWG OFC speaker cable in single or two-pair configuration
- Cylindrical outer sheath
- Metre marked on outer jacket
- Supplied on 50m spool



ProAv Alto / Alto Biwire

- Heavy duty 14AWG OFC speaker cable in single or two-pair configuration
- Metre marked on outer jacket
- Supplied on 76m spool

Cables

Terminated Audio Cables

Peavey XLR cables

- Heavy duty professional cable with industry-standard XLR connector on each end
- 10/25/50 foot lengths (3.0/7.6/15.2m)

Peavey Speakon cables

- 16 gauge professional speaker cable with NL2FC Speakon connector on each end
- 25/50 foot lengths (7.6/15.2m)

Peavey 6.35mm speaker cables

- 16 gauge professional speaker cable with 6.35mm connector on each end
- 25/50 foot lengths (7.6/15.2m)

ProAV Stereo RCA

- 24K gold-plated connectors on both ends
- multi-strand copper conductors
- dual shielding minimises interference
- 1m, 2m or 4m lengths

ProAV Subwoofer cable

- 24K gold-plated connector on both ends
- Multi-strand copper conductor
- Dual shielding minimises interference
- 2m, 4m, 6m or 8m lengths

ProAV Optical

- TOSLINK connector on each end
- 24K gold-plated connector tip surround protects lens from damage
- High-strength fibre cladding maintains refractive index and delivers exceptional strength
- Supplied with mini-TOSLINK adaptor
- 1m, 2m or 5m lengths

Cables

Terminated Video Cables

ProAV Component

- Precision 24K gold plated connectors
- Multi-strand copper conductors provide excellent signal transfer
- Dual-shield design for interference-free pictures
- 1m, 2m or 4m lengths

ProAV HDMI

- 24K gold plated connectors
- High speed with Ethernet (1080p)
- Dense multi-shield provides optimum isolation
- Supplied with one 180degree swivel adaptor to allow connection in tight places (behind equipment)
- 1m, 2m, 3m and 4m lengths

Key Digital Red Iguana HDMI

- 24K gold plated connectors
- High speed with Ethernet
- 3D, Audio return channel
- Engineered for use with all HDTV formats including 1080P)
- 0.9m, 1.8m, 2.7m, 3.6m & 6m lengths

Key Digital Python HDMI

- 24K gold plated connectors
- 3D, Audio return channel & High speed with Ethernet
- Contains special circuit to increase cable run
- LED for power detection and identification of receiving end of cable
- CL3 rated for in wall use
- 9m, 12m, 15m, & 22.5m lengths

Test Equipment

Test Equipment

CS1000 Cable Scanner

The CS1000 is more than just a cable tester. It also tests phantom power voltage and phase, as well as cable phasing (polarity). It tests NINE different types of cable ends; banana, 1/4", 1/8" (3.5mm), RCA, XLR, Speak-On, 7-pin MIDI, RJ11 (Telephone), and RJ45 (Ethernet and CAT 5).

Features

- Tests 9 different types of cable ends: banana, 1/4", 1/8" (3.5mm), RCA, XLR, Speakon, 7-pin MIDI, RJ11 (Telephone), and RJ45 (Ethernet and CAT 5)
- Tests continuity, phantom power voltage and phase, as well as cable phasing (polarity)
- Sends a balanced, 1 kHz audio tone out one side for wiring and audio equipment phase testing

TOA ZM104A

- Analogue impedance meter
- x1, x10, x100 range selection
- Measure speaker lines up 100k ohms
- Impedance to power conversion charts
- Carry case